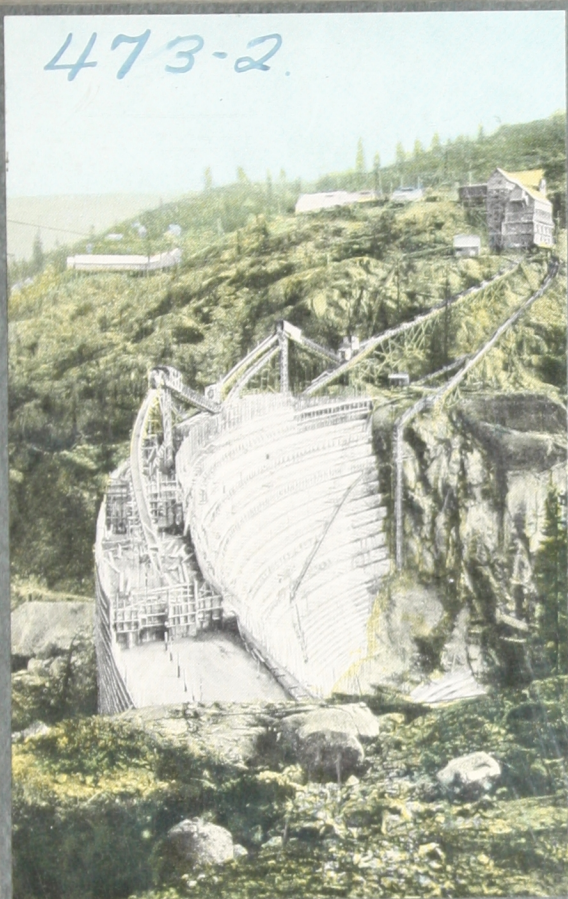


473-2

CONCRETE



*Efficiently
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Economically
Mixed*



SMITH
MIXERS
and
PAVERS

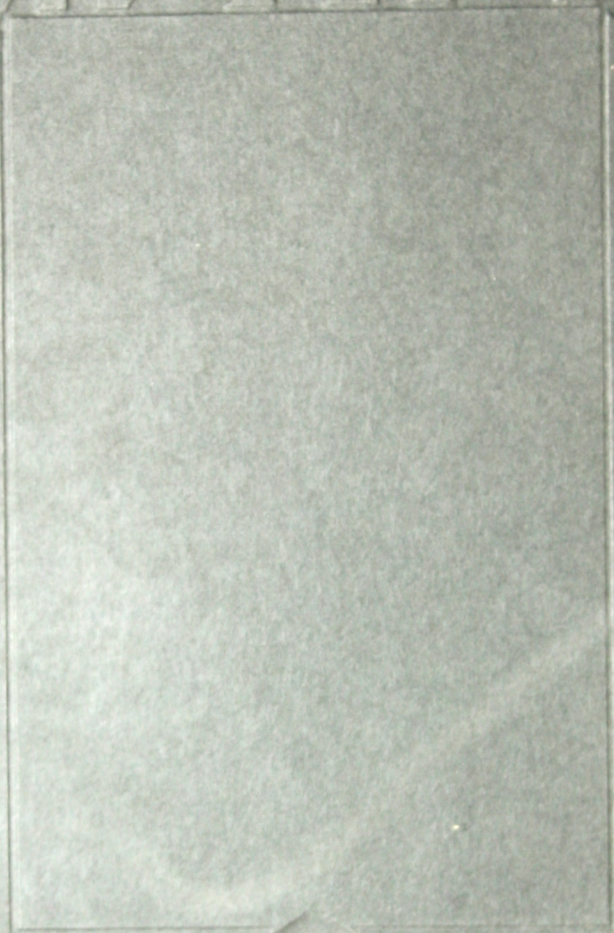
BECKWITH MACHINERY CO.

OFFICE AND WAREHOUSE
BROWN STREET BUILDING-FRONT & BROWN ST.
PHILADELPHIA, PA.

Catalog No. 526

CONCRETE

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SMITH

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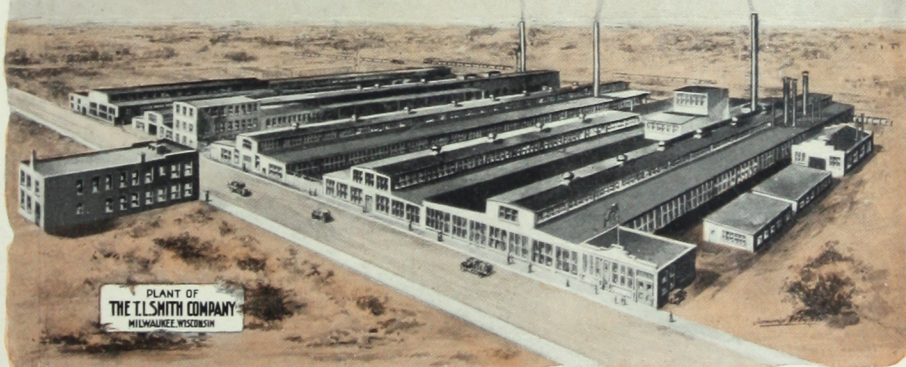
SMITH CONCRETE MIXERS *and* PAVERS



CATALOGUE NO. 526

THE T. L. SMITH COMPANY
MILWAUKEE, WIS.

SALES OFFICES AND SERVICE STATIONS
IN ALL PRINCIPAL CITIES



PLANT OF
THE T. L. SMITH COMPANY
MILWAUKEE, WISCONSIN





Famous Miami Biltmore Hotel, which passed through Florida storm of 1926 without serious damage. Smith Mixers poured the concrete for this structure.

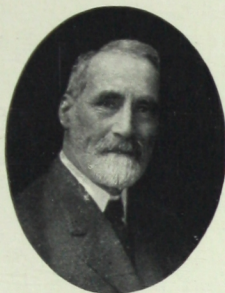
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27 YEARS OF MIXER BUILDING

In 1900, Mr. T. L. Smith, founder of The T. L. Smith Company, built his first Smith Tilting Mixer which was also one of the earliest mixers of any type.



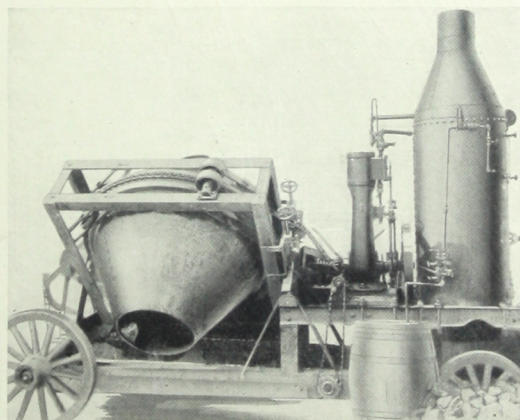
T. L. Smith

Today, Smith construction mixers are built in sizes from $2\frac{1}{2}$ cu. ft. to 112 cu. ft. per batch with a Paver of 27 cu. ft. capacity. The present mixing drum is of the same double-cone type as the drum originally used,—with refinements in blade construction and tilting mechanism.

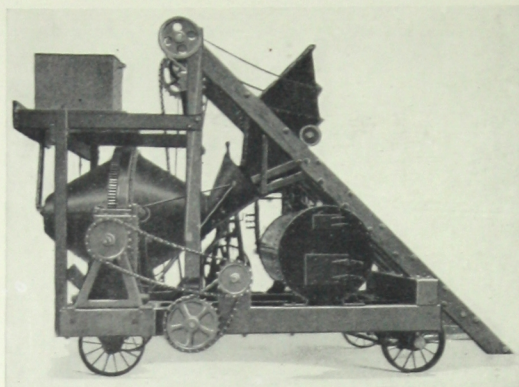
Double-Cone Drum A Remarkable Achievement

For 27 years and today as well, the greatest contractors everywhere state with enthusiasm that this original design with the famous Smith "end-to-center" action has never been equalled. No other drum approaches the speed and thoroughness of mixing, the fast tilting discharge, and the self-cleaning feature:—the four advantages which make the perfect mixing drum. In fact, the design has been so universally accepted that Smith Tilters are built under Smith Patents in Canada, England, Germany, Italy and Austria.

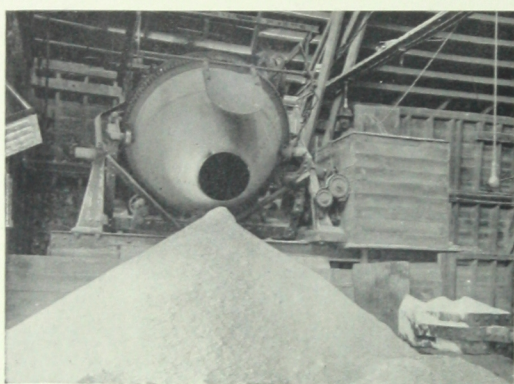
Because the drum is tilted for discharge, extremely dry concrete, mortar, and totally dry batches such as are required in glass plants, chemical plants, baking powder plants and rock fertilizer plants, can be readily mixed and discharged, giving it a wide field of usefulness. It is used in practically 98% of the glass factories in this



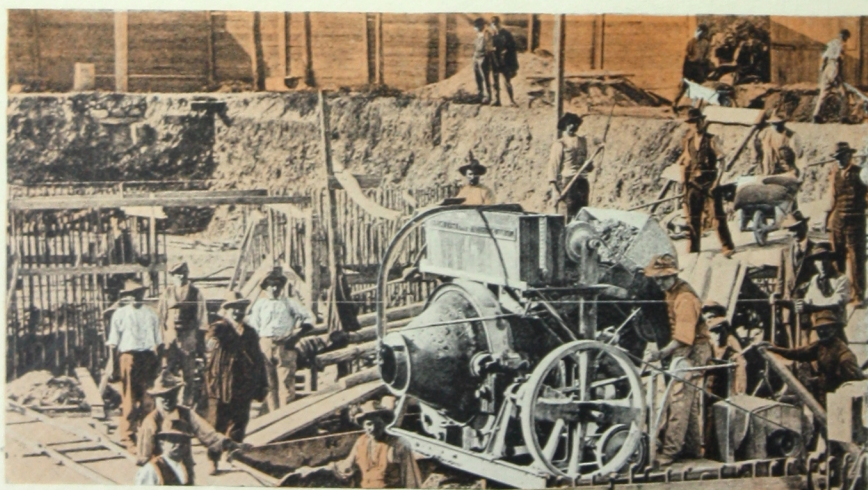
The First Smith Tilting Mixer—1900



Early Model Smith Tilter With Power Loader.



14-S Smith Mixer Used in Mixing Dry Glass Batches—
Consolidated Window Glass Co., Mt. Jewett, Pa.



Smith Tilting Mixer in Bologna, Italy, Built Under Smith License.

country. It is also used widely for mixing core sand in foundries.

The smaller sizes are useful in cold patch road repair work, readily mixing and discharging the binder and crushed stone.

In 1906, the Smith Non-Tilting Drum with mixing action patterned closely after the famous Smith Tilter, was designed and by many contractors is conceded to be the best of this type. It has been used for twenty years on Smith Non-Tilting Mixers and Pavers.

Smith mixers require less power and last longer because of the easy mixing action which is obtained with the proven Smith design.

Many Smith Mixers sold 20 to 25 years ago, still in service

There are Smith Grand Dads of all sizes, 20 to 25 years old, which are still turning out concrete. Serial No. 1, has been retired, but Nos. 37 and 82, built in 1900, are still responding to the whistle.

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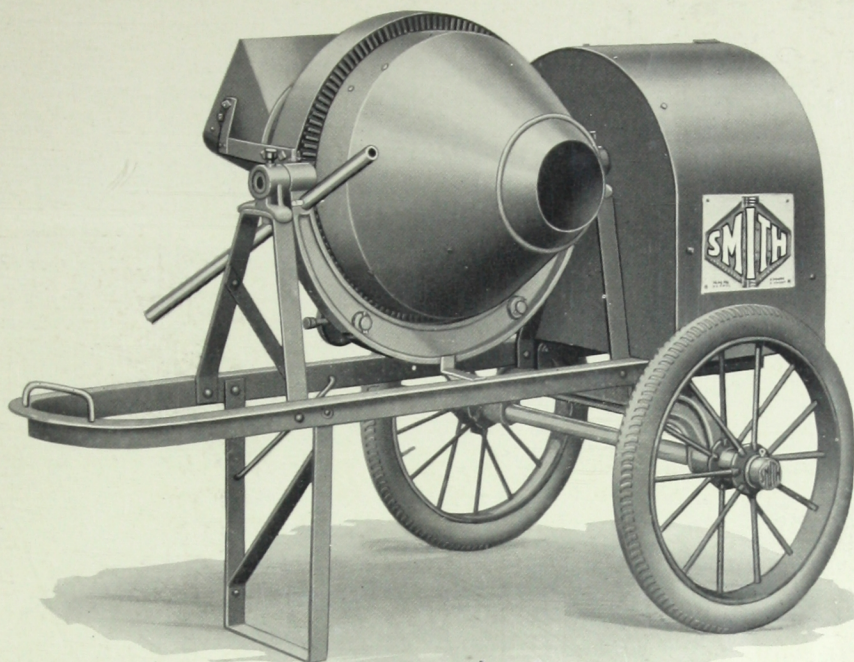
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THE MASCOT



Smith Mascot (2½-S) weighs 730 pounds—has easy high speed portability.

The Smith Mascot or 2½-S Tilter is ideal for the small job and repair contractor who expects to place 25 to 40 cu. yds. of concrete per day.

It is light enough to be drawn along the forms and small enough to be placed close to cellar windows for direct chuting of concrete for cellar floors and similar work.

It is a mixer of the same high grade, sturdy construction as the big Smith Tilters at a price for the contractor who is just starting.

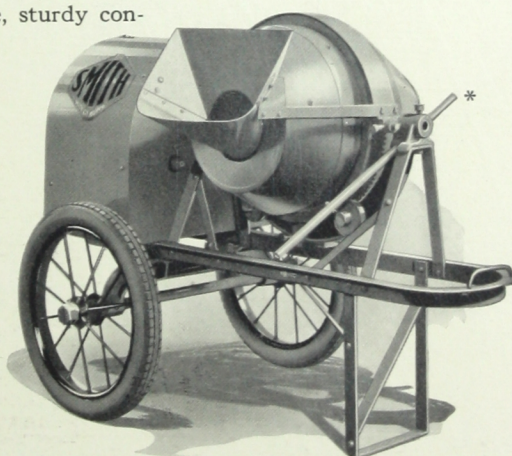
The purchase of a Smith is the right start.

Specifications

1. The famous Smith Tilting Drum with its fast mixing and fast discharge. Built of $\frac{3}{8}$ " plate.
2. A 1½ H.P. engine of the best quality, surplus power, Wico Magneto. Steel engine house.
3. Electric welded steel drum. Speed 15 R. P. M.
4. Machine cut engine gear and pinion.
5. Chilled thrust rollers with dust-proof lubrication.
6. Electric steel drum pinion, with dust-proof lubrication.
7. Discharge operated from both sides.
8. Choice of steel truck wheels, demountable cushion tires, or wheels for Ford 30"x3½" tires.
9. Light weight (730 lbs.) and extremely portable. Can be towed by auto at regular auto speeds.
10. All steel frame. Full trussed rear axle.
11. Capacity—2½ cu. ft. per batch of mixed concrete. A full wheelbarrow load of mixed concrete per batch. 25 to 40 cu. yds. per day.

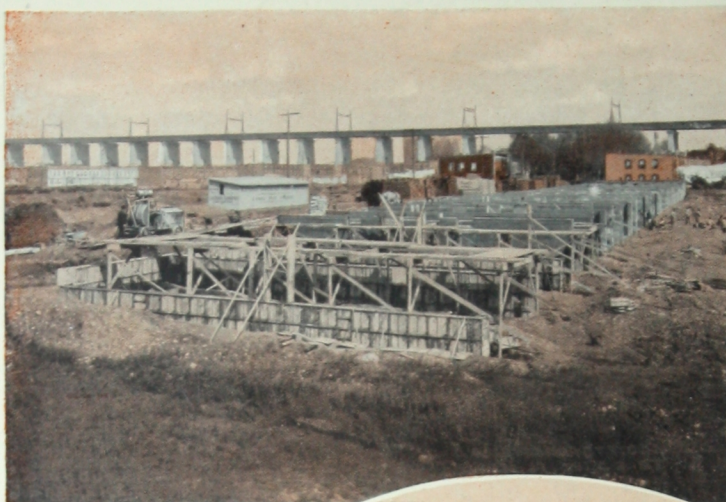
Detail dimensions on page 51.

See Page 7 for specifications on Smith 3½-S Mixer.



Cement can be introduced from bag resting on wide charging hopper.

*This handle slides so that tilting is easily accomplished from either side of mixer.



Fast work on subdivision residence building. "A Foundation a Day," with a 7-S and 3½-S Smith Mixer, was the schedule.

D'Orio Concrete Const. Co.
Long Island City, Contractors.

\$2,500,000
Loew's Theater,
St. Louis, built
by two 7-S
Smiths.

Boaz-Kiel
Const. Co.,
Contractors.

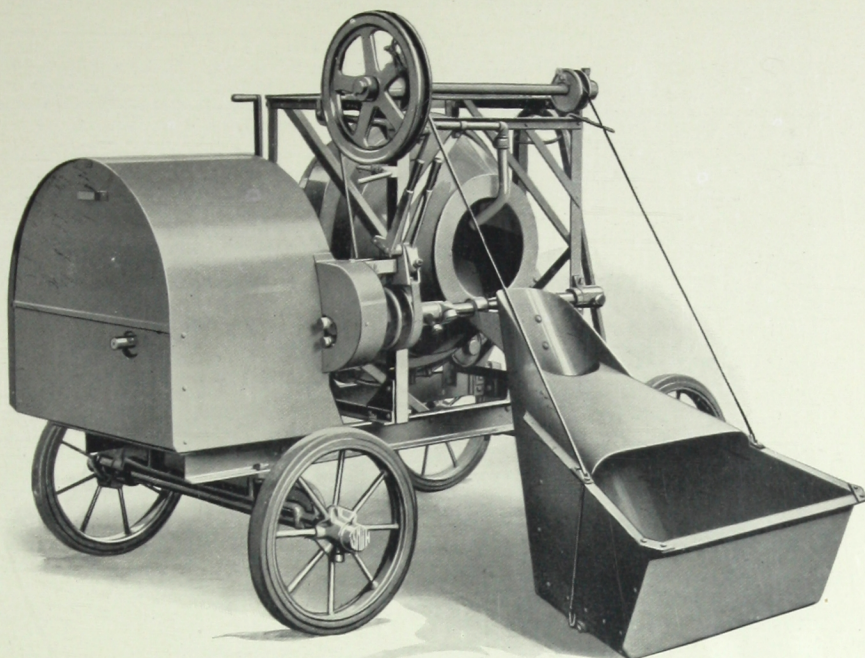


New St. Louis University Buildings—one Smith 7-S used—I. Schirm Contracting Co.

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3½-S HALF BAG TILTER



Smith 3½-S Half Bag Tilter—with four wheel solid rubber tired truck and power loader.

The second size in the Smith line, the 3½-S Tilter, is designed to produce 35 to 50 cu. yds. of concrete daily.

This is the smallest Smith mixer equipped with power loader. It is of the same type as the loaders on the 5-S and 7-S sizes—sturdy and workable in all respects; the light weight of 1730 lbs. makes for easy handling. The use of the power loader speeds up production and increases the capacity of this mixer about 30 per cent.

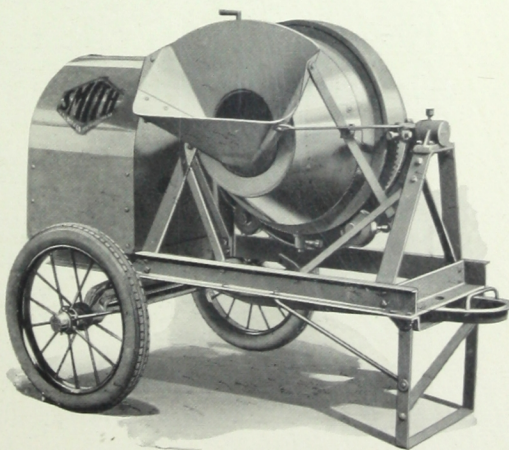
It can be had in two-wheel high speed trailer model and four steel wheel truck type, both equipped with feed chute and weighing but 1270 lbs.

Specifications

1. 3½ cu. ft. mixed capacity; 35 to 50 cu. yds. daily output.
2. 1½ H.P. engine best quality with Wico Magneto, mixer with feed chute; 2 H.P. engine on power loader model. Electric Motor 2 H.P.
3. Double-cone tilting drum with fast mix and discharge; electrically welded of ¼" plate; 16 R. P. M.
4. Drive shaft turns in renewable bushing; speed of shaft 131 R.P.M.
5. Heavy truss type rear axle; choice of four steel wheels, demountable cushion tires or two clincher wheels for 30"x3½" Ford tires; easy shifting and moving from job to job.
6. Discharges in 8 seconds; high enough for discharge into wheelbarrows.
7. Lever for controlling discharge from feed side furnished at slight additional cost.
8. Low charging hopper 31 inches wide, 45 inches high for fast, easy charging; platform can be furnished.
9. Rollers fixed to shafts; shafts turn in bronze bushings.
10. Simple hoist clutch on power loader.
11. Weight, with power loader 1730 lbs., low charger two wheel model 1125 lbs., low charger four wheel model 1270 lbs.

Detail dimensions on page 51.

The next largest size Smith Tilter—the 5-S—is described on page 11.

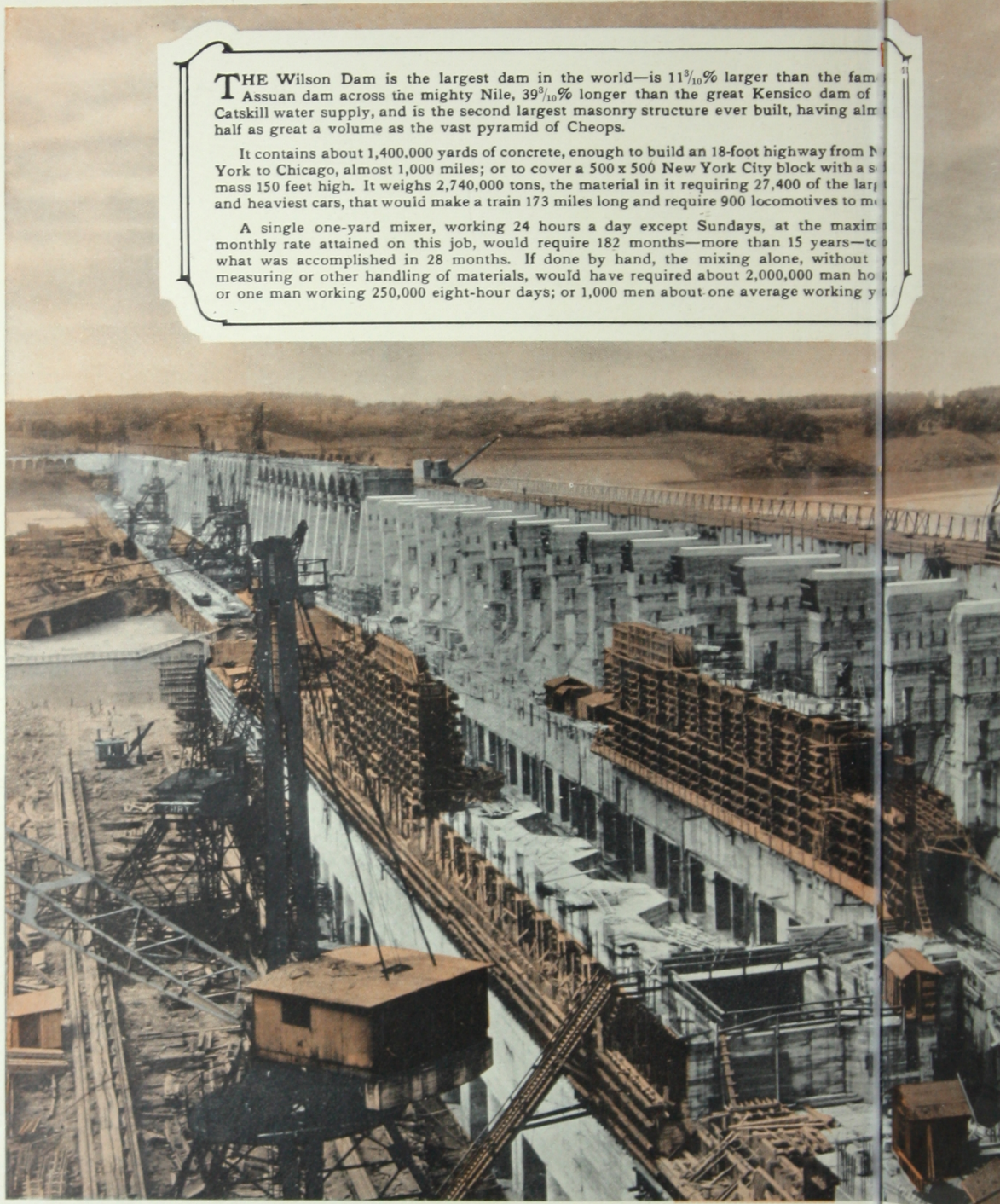


Smith 3½-S Tilter—two wheel, low charger model. Can also be furnished with cushion tires.

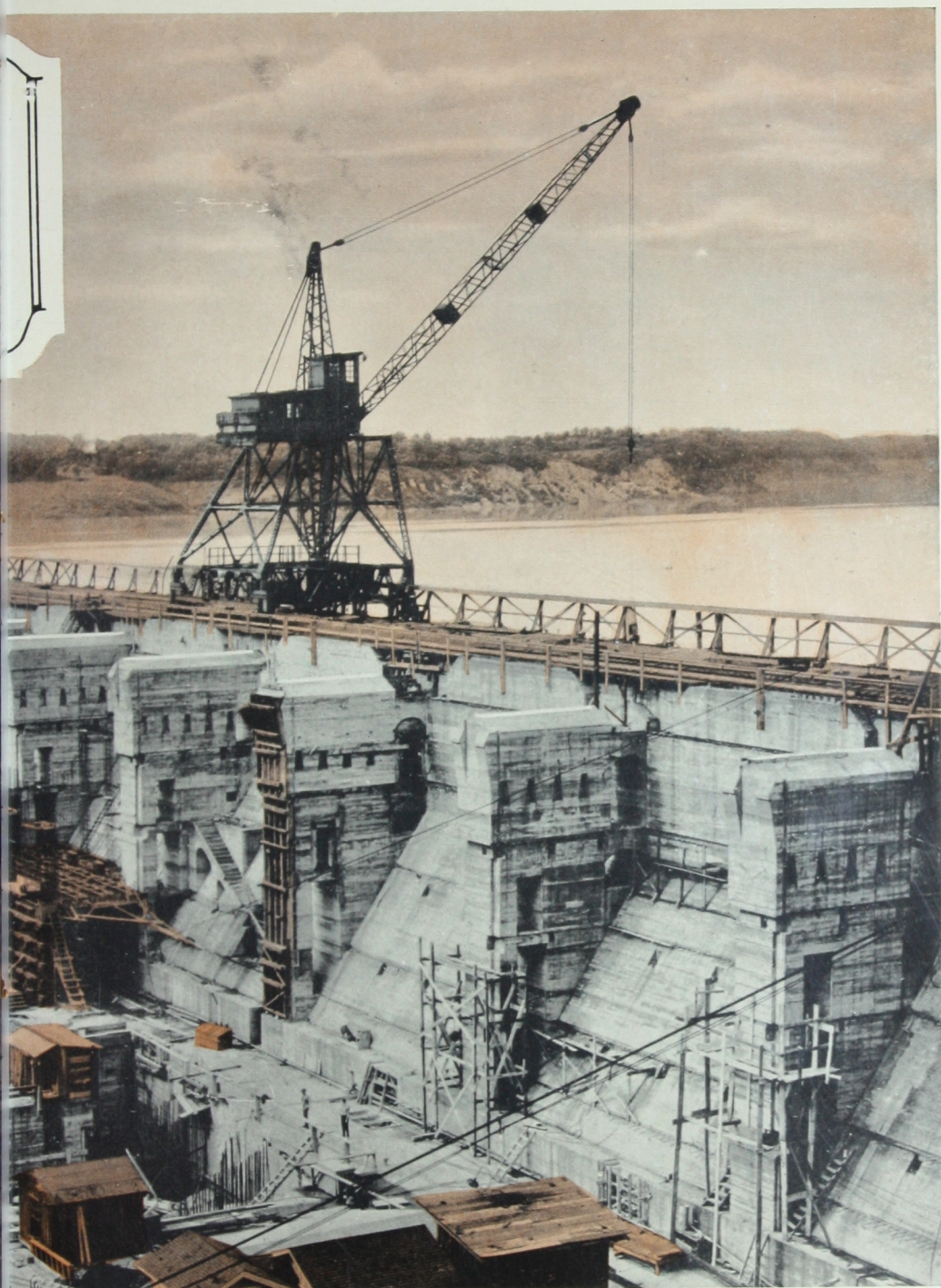
THE Wilson Dam is the largest dam in the world—is $11\frac{3}{10}\%$ larger than the famous Assuan dam across the mighty Nile, $39\frac{9}{10}\%$ longer than the great Kensico dam of the Catskill water supply, and is the second largest masonry structure ever built, having almost half as great a volume as the vast pyramid of Cheops.

It contains about 1,400,000 yards of concrete, enough to build an 18-foot highway from New York to Chicago, almost 1,000 miles; or to cover a 500 x 500 New York City block with a solid mass 150 feet high. It weighs 2,740,000 tons, the material in it requiring 27,400 of the largest and heaviest cars, that would make a train 173 miles long and require 900 locomotives to move.

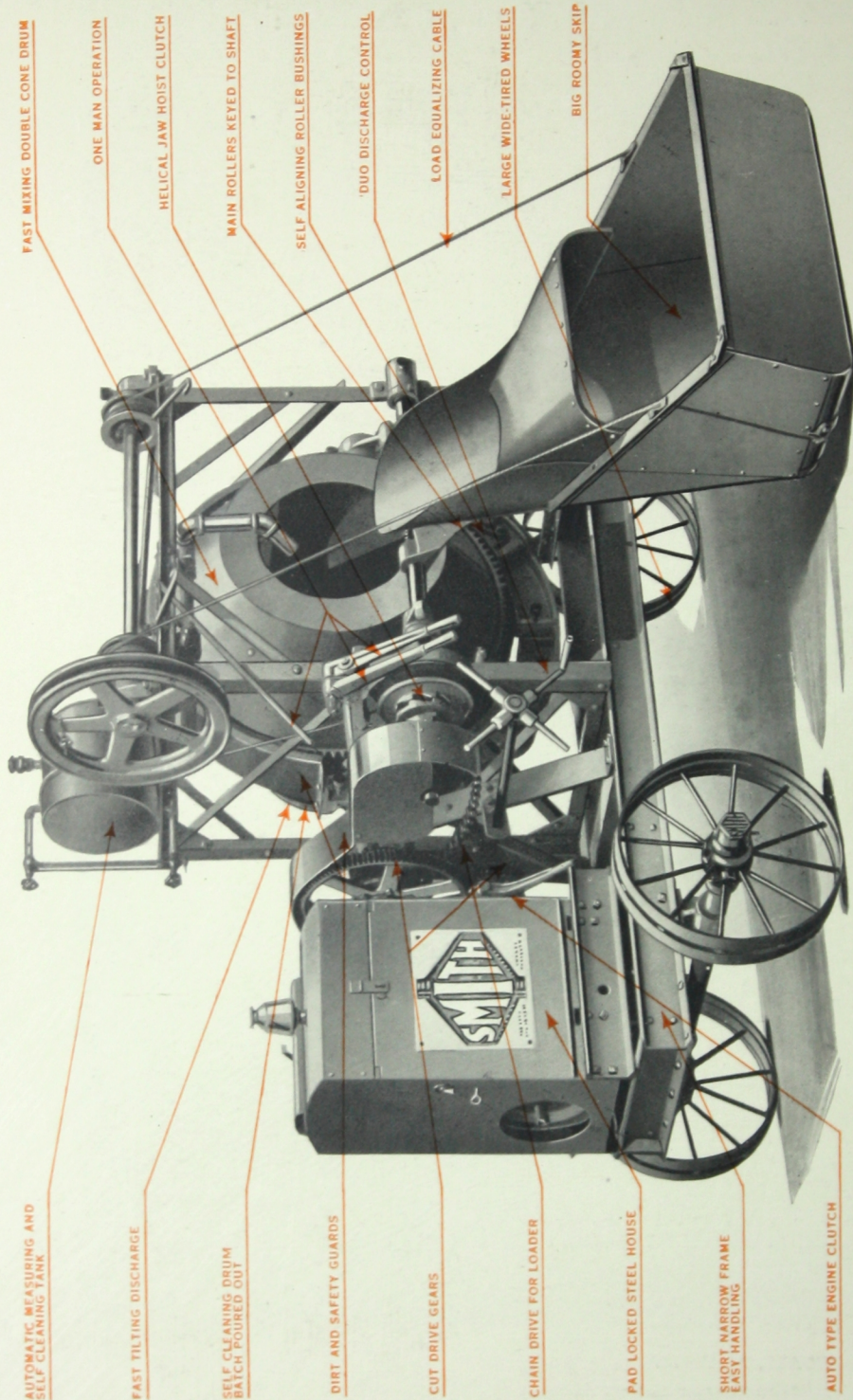
A single one-yard mixer, working 24 hours a day except Sundays, at the maximum monthly rate attained on this job, would require 182 months—more than 15 years—to do what was accomplished in 28 months. If done by hand, the mixing alone, without measuring or other handling of materials, would have required about 2,000,000 man hours, or one man working 250,000 eight-hour days; or 1,000 men about one average working year.



THE FAMOUS WILSON DAM JUST COMPLETED AT MUSCLE SHOALS, ALA.
The U. S. Government used 6 two-yard and 2 four-yard Smith Mixers (the World's largest)
All Smith Mixers regardless of size have the same thorough mixing action



DAM JUST COMPLETED AT MUSCLE SHOALS, ALABAMA
Smith Mixers (the World's largest) on this mammoth project.
thorough mixing action that insures permanence.



SMITH TILTING MIXERS HAVE MANY ADVANTAGES

The illustration shows a Smith 7-S with Power Loader and Water Tank.

THE T.

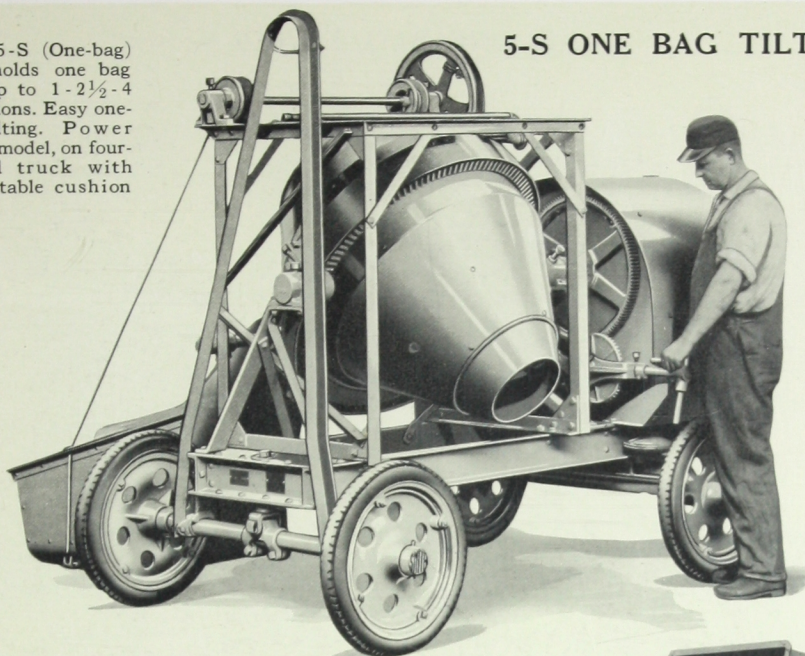
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Smith 5-S (One-bag) Tilter holds one bag batch up to 1-2½-4 proportions. Easy one-hand tilting. Power Loader model, on four-wheeled truck with demountable cushion tires.



5-S ONE BAG TILTER

Architects and Engineers are specifying concrete of 1-2-3 and 1-2-4 proportions for driveways, garage and industrial floors, and reinforced concrete buildings; with mixes of the same proportions specified for bridges and culverts in highway work. The use of either a one or two bag mixer is required to avoid the non-uniformity of concrete when a sack of cement is split for fractional bag batches.

Easily Portable Bag Mixer

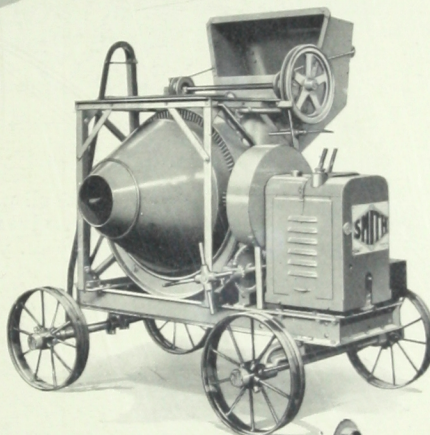
Easy portability is an essential in much of this work, and the 5-S with its short trucks and light weight is proving popular. Its capacity of 50 to 80 cu. yds. per day is ample for all requirements. For city use it can be equipped with four cushion type rubber tired wheels.

The 5-S can be furnished with low charge hopper and platform or power loader.

Specifications

1. 5 cu. ft. mixed capacity; 50 to 80 cu. yds. daily output; one bag batch up to 1-2½-4 proportions.
2. Double cone tilting drum with fast mix and discharge. Drum turns 14.5 R.P.M. Built of ¼" plate.
3. Rollers fixed to shafts; shafts turn in bronze bushings.
4. Drive shaft turns in renewable bushing; speed of shaft 138 R.P.M.
5. Heavy truss type rear axle; furnished on four steel or four solid rubber tired wheels; easy shifting and moving from job to job.
6. Discharge in 8 seconds; high enough for discharge into wheelbarrows; operates from both sides of mixer.
7. Low charging hopper 36 inches wide 45 inches high, for fast easy charging; platform can be furnished.
8. Automatic water tank 8 gallons.
9. 3 H.P. single cylinder engine best quality, with Wico Magneto; two cylinder Novo engine 3 to 6 H.P., or 4 H.P. single cylinder Le Roi at extra cost.
10. Electric Motor 3 H.P.
11. Weight, with feed chute - 1960 lbs.; with power loader - 2600 lbs.

Detail dimensions on Page 52.

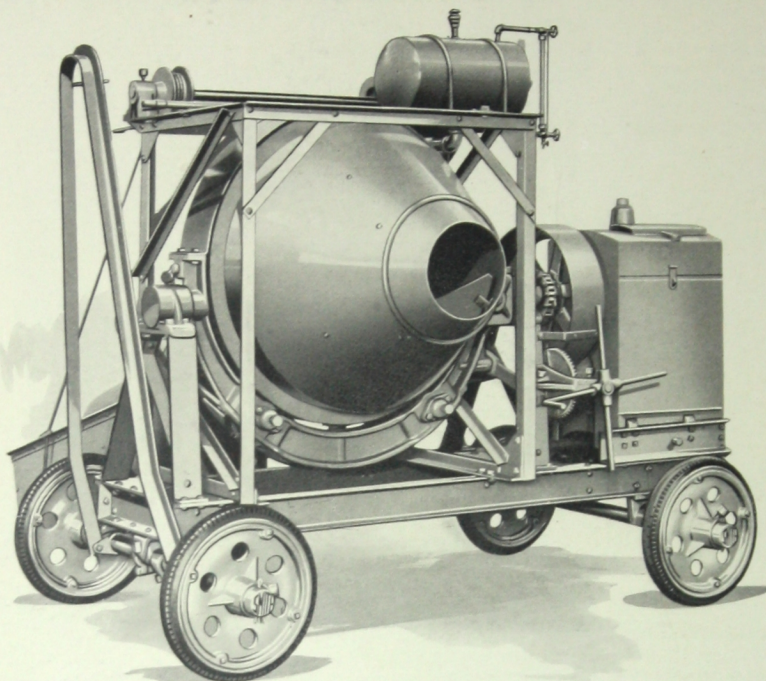


Smith 5-S (One-bag) Tilter with two cylinder Novo engine.



Smith 5-S (One-bag) Tilter—low charger model.

7-S ONE BAG TILTER



Sturdy Smith 7-S Tilter with power loader, on four wheel rubber cushion tired truck.

The 7-S Tilter is of one bag capacity, with mixes of all proportions up to 1-3-6. It is easily portable and gives the contractor a daily capacity of 70 to 120 cu. yds., slightly higher than with the one-bag 5-S.

Easy Tilting Discharge

It is practically self-tilting because the batch quickly shifts to the discharge side when tilting starts.

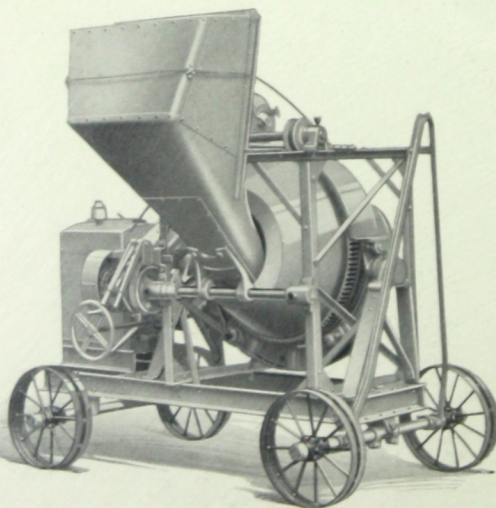
The Smith 7-S Tilter is the sturdiest, fastest one bag mixer built.

It can be furnished with low charge hopper and platform, as well as power loader. Four rubber cushion tired wheels can be provided for rapid city moving.

Specifications

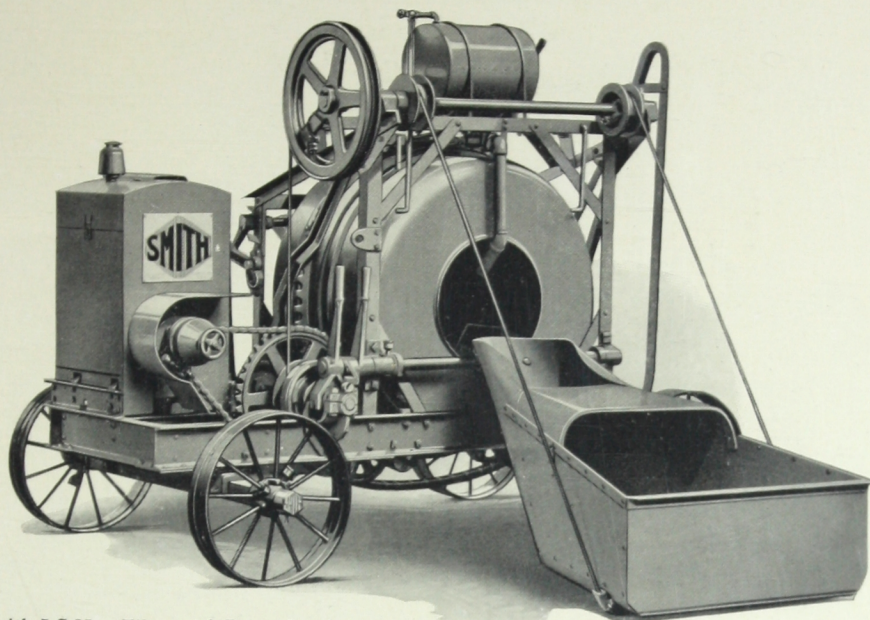
1. 7 cu. ft. mixed capacity; 75 to 120 cu. yds. daily output; one bag batch, up to 1-3-6 proportions.
2. Double-cone tilting drum with fast mix and discharge. Drum turns 16 R.P.M. Built of $\frac{3}{4}$ " plate except flat section and head $\frac{1}{4}$ ".
3. Rollers fixed to shafts; shafts turn in self-aligning renewable bushings.
4. Drive shaft turns in bronze bushings; speed of shaft 174 R.P.M.
5. Furnished on four steel or four rubber cushion tired wheels; easily portable.
6. Discharges in 8 seconds; high enough for discharge into wheelbarrows or carts; tilts easily from either side of mixer.
7. Low charging hopper 36" wide and 51 $\frac{1}{2}$ " high for fast easy charging; platform can be furnished.
8. Automatic water tank 12 gallons—water valve 2".
9. 8 H.P., 2 cylinder engine; or 10 H.P. 4 cylinder engine at extra cost.
10. Electric motor 5 H.P.
11. Weight, with feed chute, 2650 lbs.; with power loader, 3435 lbs.

Detail dimensions on page 52.



7-S Smith Tilter—has centralized speedy control.

7-S ONE BAG NON-TILTER



Smith 7-S Non-Tilter with Power Loader.

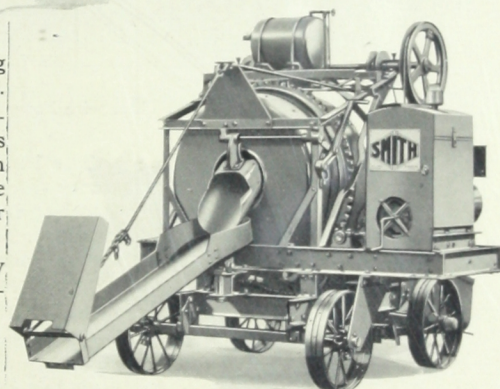
The Smith 7-S Non-Tilter is a one bag mixer with batches up to 1-3-6 proportions.

The simple yet rugged construction insures dependable service and long life. As a result hundreds of contractors depend on it to do all their mixing, even on large apartment and hotel buildings where larger mixers were formerly used.

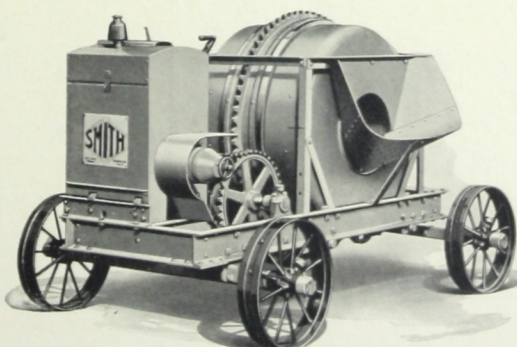
The mixing and discharge are unusually fast because of the full width bucket construction. This high speed operation means more yards at the end of the day and more profits for the contractor.

Specifications

1. 7 cu. ft. mixed capacity; 75 to 120 cu. yds. daily output; one bag batch up to 1-3-6 proportions.
2. Mixing drum 45" diameter, 31' long; feed opening 20", discharge opening 16". Drum turns 16 R.P.M. Built of $\frac{3}{4}$ " plate.
3. Drum support rollers keyed to shafts, renewable bronze bushings in shaft boxes.
4. Countershaft supported in babbitted bearings. Shaft turns 107 R.P.M.
5. Furnished on four steel wheels, four cushion rubber tired wheels, or skids.
6. Discharges in 8 seconds; high enough for discharge into wheelbarrows or carts. Mixers with power loader can be discharged from either side.
7. Mixer can be equipped with low charge hopper or power loader.
8. Automatic water tank 12 gallons—water valve 2".
9. Gasoline engine 2 cyl. 8 H.P.; or 4 cyl. 10 H. P. at extra cost.
10. Electric motor 5 H.P.
11. Can be furnished on crosswise trucks for end discharge at additional price.
12. Eight foot swivel chute for use with mixer on crosswise trucks at additional price.
13. Weights, with power loader 3585 lbs.; with low charge hopper 2980 lbs.
Detail dimensions on page 53.

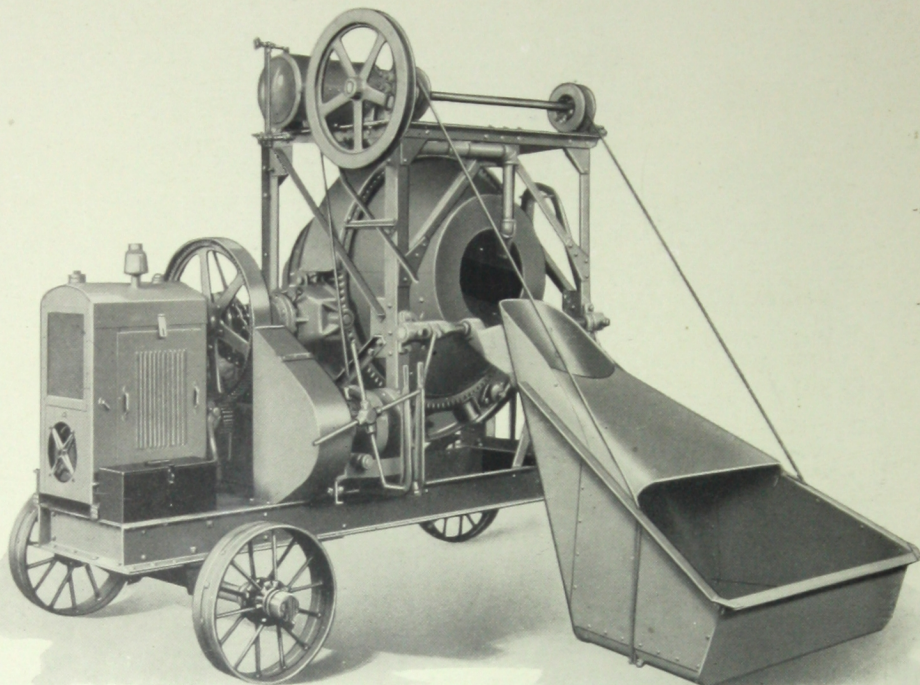


Smith 7-S Non-Tilter with Power Loader, mounted crosswise and with chute—particularly effective for conduit, sidewalk and alley construction.



Big wide charging hopper used with platform.

10-S TWO BAG TILTER



Smith 10-S Tilter with Power Loader and Water Tank.

The 10-S Tilter is designed for the general contractor, road or bridge contractor who requires a mixer of two bag batch capacity on a mix up to 1-2½-4 proportions. These proportions are being widely specified by engineers and architects for bridges, culverts, roads, streets, reinforced concrete buildings and other concrete structures.

This mixer is extremely fast and will turn out considerably more concrete than the smaller sizes with a crew but slightly larger.

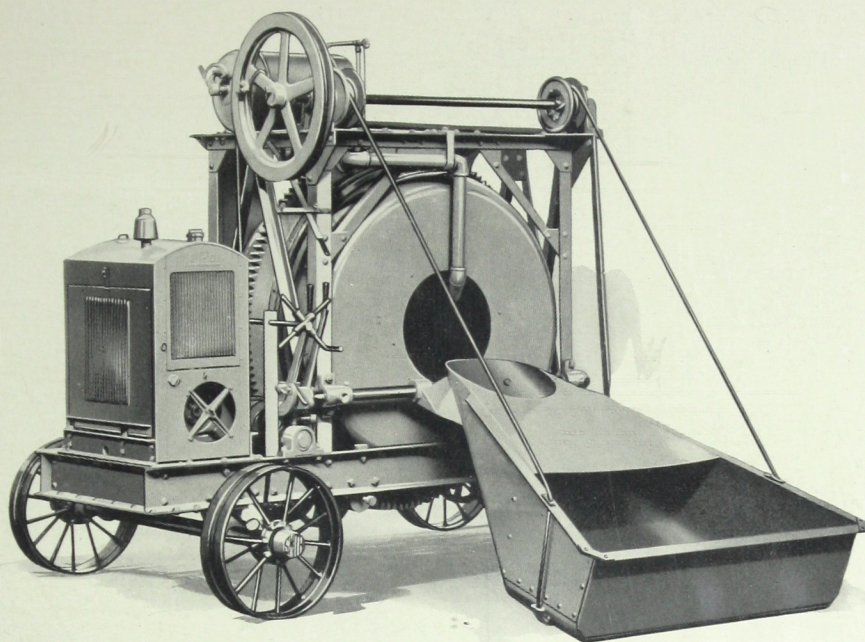
The compact construction makes it as easily handled as the smaller units.

Specifications

1. 10 cu. ft. mixed capacity, 100 to 150 cu. yds. daily output; two bag batch up to 1-2½-4 proportions.
2. Double-cone tilting drum with fast mix and discharge; drum turns 14 R.P.M. Built of ¼" plate except flat section and head ½".
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Drive shaft turn in bronze bushings. Shaft speed 125 R.P.M.
5. Furnished on four steel wheels or four rubber tired wheels.
6. Discharges in 8 seconds; high enough for discharge into wheelbarrows or carts; tilts easily by hand from either side of mixer.
7. Can be furnished with feed chute, batch hopper or power loader.
8. Automatic water tank 15 gallons, water valve 2".
9. Gasoline engine 2 cyl., 8 H.P.; 4 cyl., 10 H.P. engine can be furnished at slight additional cost.
10. Electric motor 7½ H.P.
11. Weight, with batch hopper 5230 lbs.; with power loader 6185 lbs.

Detail dimensions on page 52.

10-S TWO BAG NON-TILTER



Smith 10-S Non-Tilter with Power Loader and Water Tank.

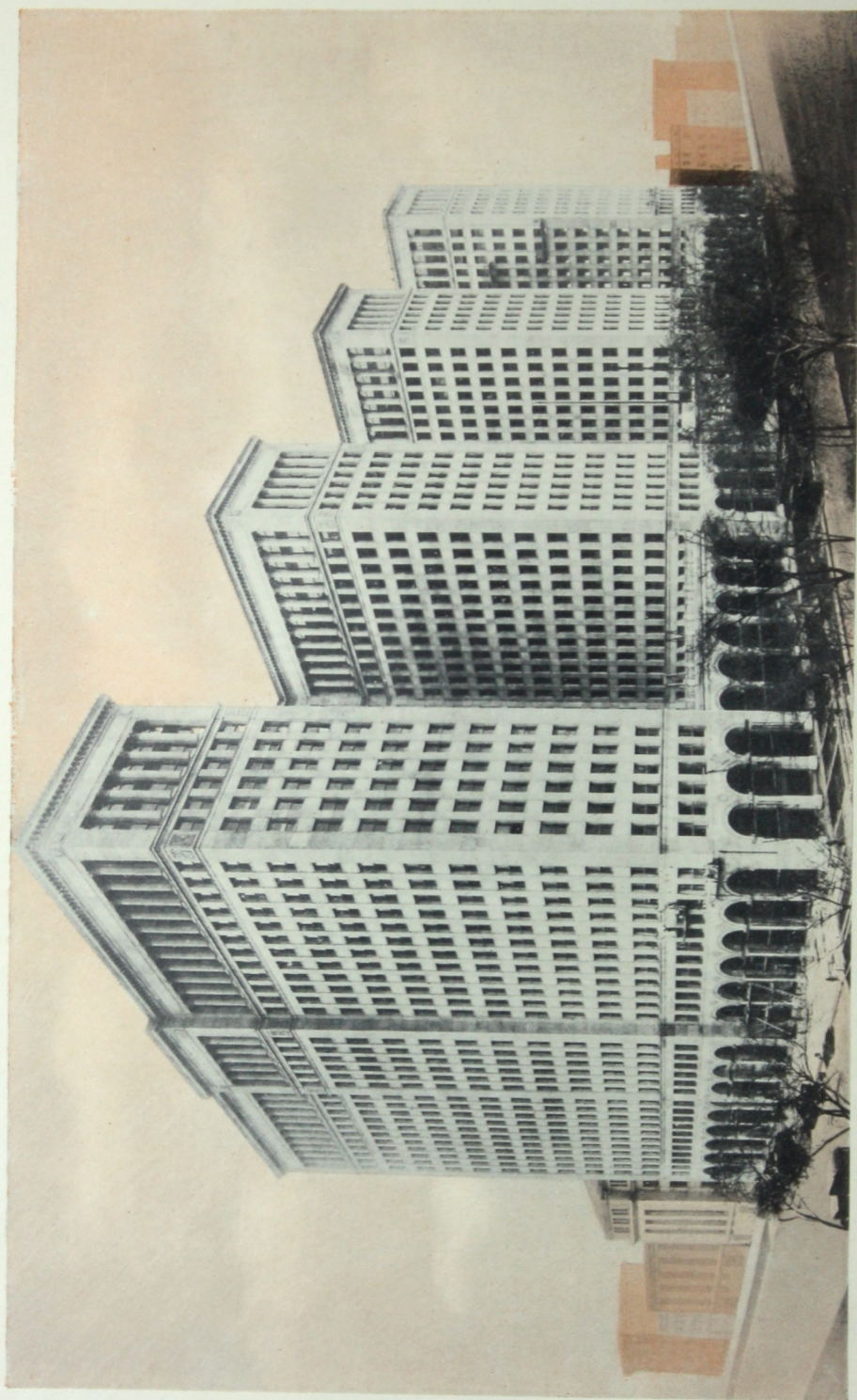
The 10-S Non-Tilter like the 10-S Tilter is particularly designed for the contractor whose jobs call for concrete of 1-2-4 proportions. It has a two bag batch capacity on these proportions giving double the output of a 5-S with but a slightly larger crew.

It can be moved from job to job and shifted as readily as the smaller size. The price is low and the output big.

The lower cost per yard means more profit to the contractor.

Specifications

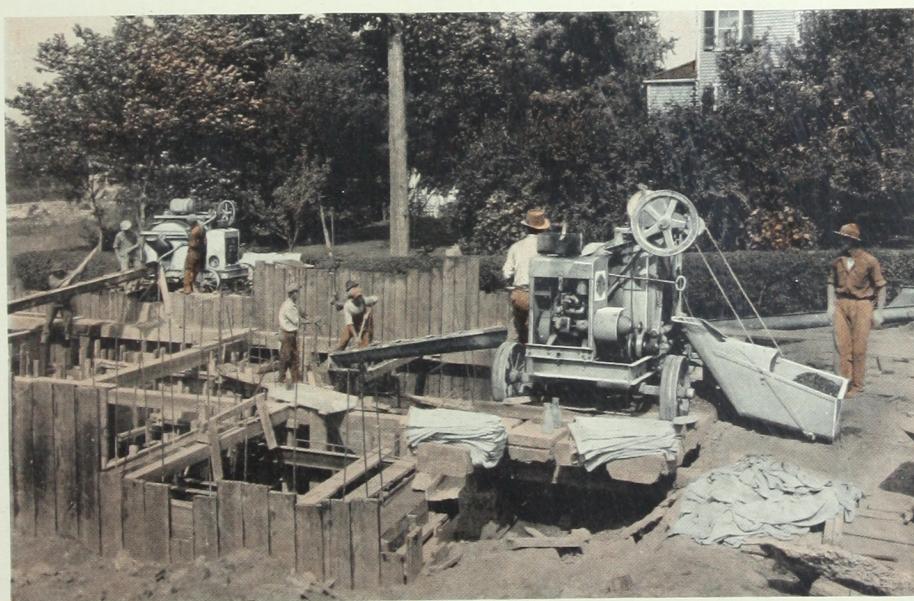
1. 10 cu. ft. mixed capacity 100 to 150 cu. yds. daily output; two bag batch up to 1-2½-4 proportions.
2. Mixing drum 4'-6¾" diameter, 32" long; feed opening 20"; discharge opening 20"; drum turns 16 R.P.M. Built of ¼" plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Countershaft supported in babbitted bearings. Shaft turns 106 R.P.M.
5. Furnished on four steel wheels, four rubber tired wheels, or skids.
6. Discharges in 8 seconds; high enough for discharge into wheelbarrows or carts. Mixers with power loaders can be discharged from either side.
7. Mixer can be equipped with feed chute, batch hopper or power loader.
8. Automatic water tank 15 gallons, water valve 2'.
9. Gasoline engine 2 cyl., 8 H.P.; 4 cyl., 10 H.P. engine can be furnished at slight additional cost.
10. Electric motor 7½ H.P.
11. Weight, with low charge hopper, 4150 lbs., with power loader 5550 lbs. Detail dimensions on page 53.



General Motors Building, Detroit, World's Largest Office Building—Thompson-Starrett Co., Contractors—Eight 14-S Smith Mixers Used.

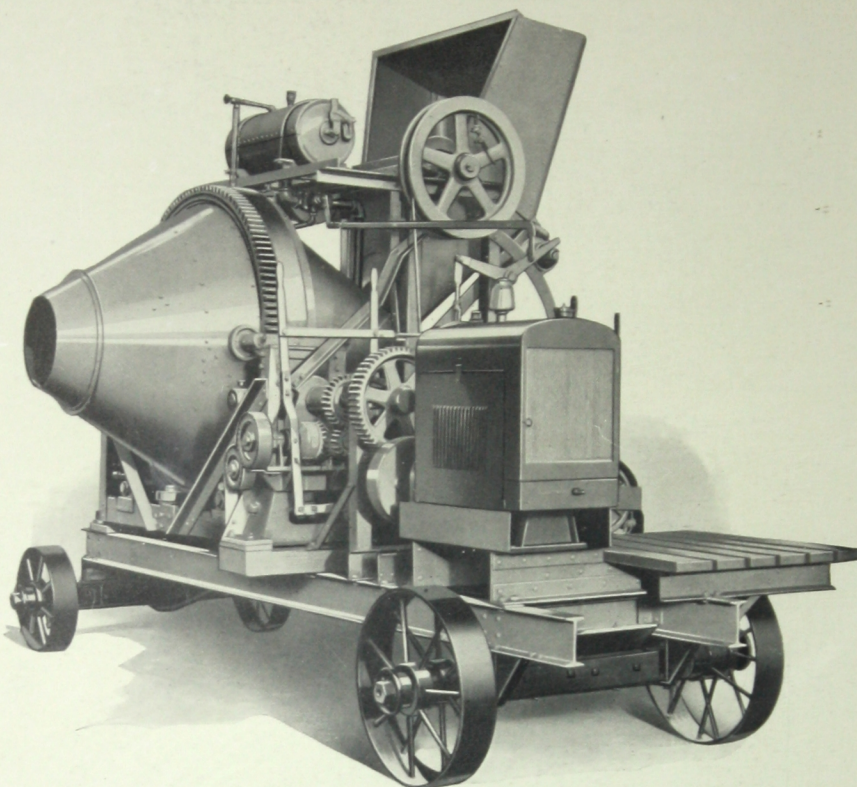


Smith Tilting Mixer, 28-S, used in construction of new Postum Cereal Company plant, Battle Creek, Mich. R. G. Phelps, Contractor.



Two Smith 7-S Non-Tilting Mixers used in construction of the Larchmont, N. Y. disposal plant,—Suburban Engineering Co., New York City—construction engineers.

14-S HALF YARD TILTER



Smith 14-S Tilting Mixer on trucks with Power Loader and 4 cylinder gasoline engine.

The Smith 14-S Tilter is designed to mix a two bag batch up to 1-3-6 proportions. Its capacity is a three bag batch on mixes of 1-2-5 and less.

The 14-S is ruggedly built which, with the smooth flowing mixing action, is responsible for its long life. The double cone drum is famous for its fast discharge, fast mixing and self-cleaning features.

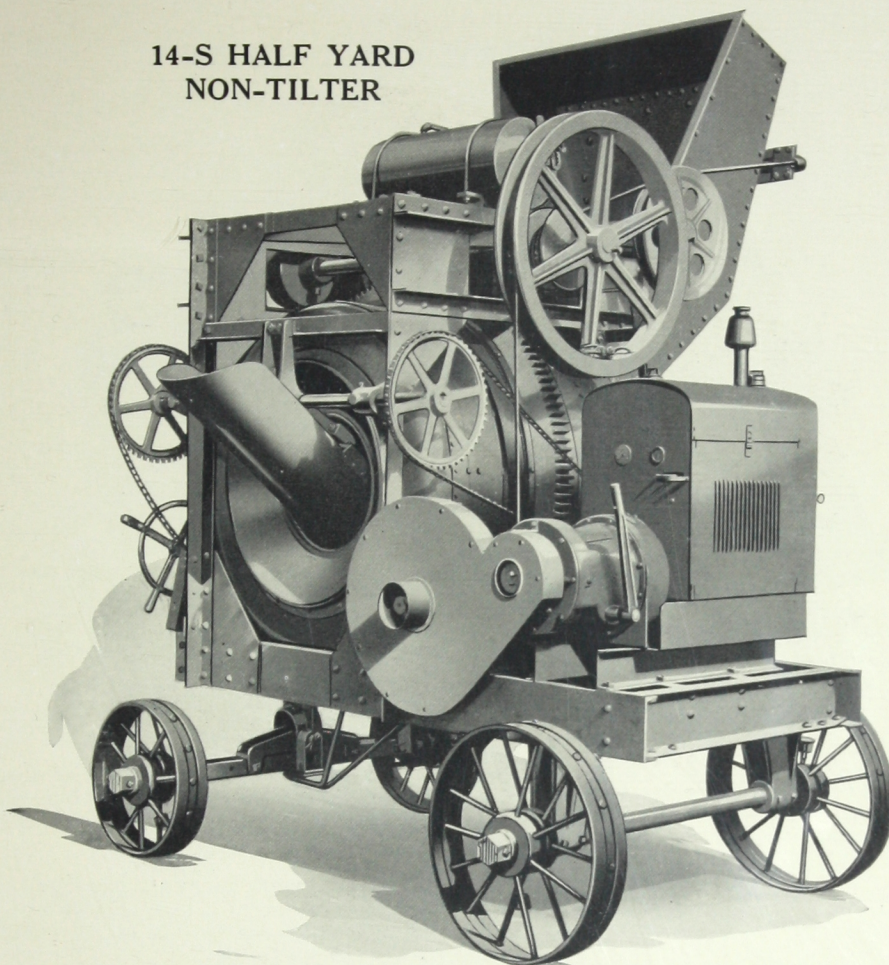
The batch in the 14-S is poured out and the speed of this method means bigger profits to the contractor on wheelbarrow or cart, as well as tower and chuting work.

Specifications

1. 14 cu. ft. mixed capacity; 150 to 240 cu. yds. daily output; for capacity in bags per batch see page 50.
2. Double cone tilting drum with speedy mix and discharge. Drum turns 12 R.P.M. Built of $\frac{1}{8}$ " plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Drive shafts turn in bronze bushings. Shaft turns at 140 R.P.M.
5. Furnished on four steel wheels, four rubber tired wheels or skids.
6. Discharges in 8 seconds; tilts by power from either side of mixer.
7. Can be equipped with feed chute, batch hopper or power loader.
8. Automatic water tank 22 gallons, water valve 2".
9. Gasoline engine 4 cyl., 15 H.P.
10. Electric motor 10 H.P.
11. Steam engine 10 H.P., boiler 12 H.P.
12. Weight, with batch hopper 8300 lbs.; with power loader 10145 lbs. Deduct 800 lbs. if trucks not required.

Detail dimensions on page 54.

14-S HALF YARD NON-TILTER



Smith 14-S Non-Tilting Mixer—on trucks with Power Loader and 4 cylinder gasoline engine.

The Smith 14-S Non-Tilter is extremely portable because of its compact construction, making it an efficient unit for use on concrete jobs of medium size. Some of the largest contractors in this country have standardized on this size.

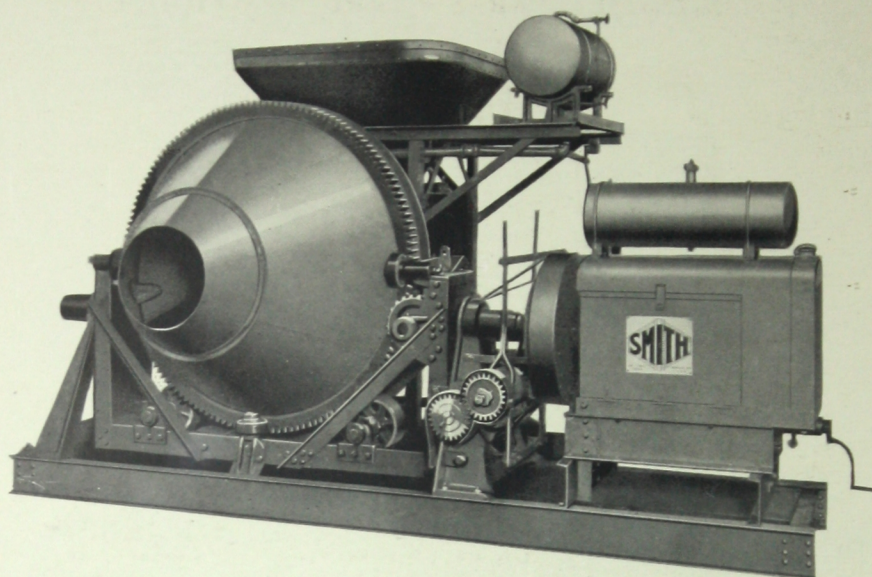
The mix and discharge is extremely fast and the rugged construction insures service uninterrupted by breakdowns. The drum is easily kept clean.

Specifications

1. 14 cu. ft. mixed capacity; 150 to 240 cu. yds. daily output; for capacity in bags per batch see page 50.
2. Mixing drum 55" diameter, 42" long; feed and discharge openings 20". Drum turns 16 R.P.M. Built of $\frac{1}{4}$ " plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Countershaft turns in babbitted bearings. Shaft speed 109 R.P.M.
5. Furnished on four steel wheels, four rubber tired wheels, or skids.
6. Discharges in 8 seconds. Mixers equipped with power loader can be discharged from either side.
7. Automatic water tank 22 gallons, water valve 2".
8. Mixer can be furnished with feed chute, batch hopper or power loader.
9. Gasoline engine 4 cyl., 15 H.P.
10. Electric motor 10 H.P.
11. Steam engine 10 H.P., boiler 12 H.P.
12. Simple band friction hoist clutch.
13. Weight, with batch hopper, 7485 lbs.; with power loader, 8825. Deduct 985 lbs. if trucks not required.

Detail dimensions on page 55.

21-S THREE-QUARTER YARD TILTER



Smith 21-S Tilting Mixer—on skids with batch hopper, with 4 cylinder gasoline engine.

Where forms can be erected far enough in advance the 50 per cent added capacity of the 21-S over the 14-S means speedier production and bigger profits for the contractor.

The additional investment in mixer is made but once while the bigger capacity is available on every job. There is little difference in ease of portability and the operation is equally fast.

The power-operated "tilt and pour" discharge under easy lever control and the double cone drum mean fast time per batch and a bigger daily output.

Specifications

1. 21 cu. ft. mixed capacity; 225 to 360 cu. yds. daily output; for capacity in bags per batch see table page 50.
2. Double cone tilting drum with speedy mix and discharge; drum turns 12 R.P.M. Built of $\frac{1}{4}$ " plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Drive shafts turn in bronze bushings. Shaft speed 140 R.P.M.
5. Furnished on four steel wheels or skids.
6. Discharges in 8 seconds. Tilted by power from either side of mixer.
7. Automatic water tank 32 gallons, water valve $2\frac{1}{2}$ ".
8. Can be furnished with feed chute, batch hopper or power loader.
9. Gasoline engine 4 cyl. 35 H.P.
10. Electric Motor 15 H.P.
11. Steam engine 14 H.P., boiler 15 H.P.
12. Weight with batch hopper, 9868 lbs., with power loader 12685 lbs. Deduct 950 lbs. if trucks not required.

Detail dimensions on page 54.

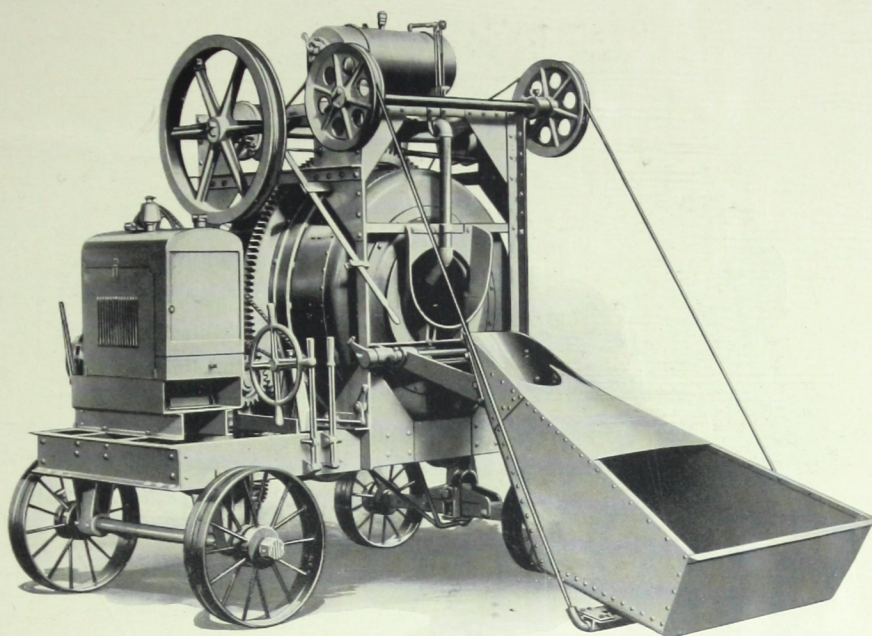
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16. lbs.
17. Detail

21-S THREE-QUARTER YARD NON-TILTER



Smith 21-S Non-Tilting Mixer—on trucks with Power Loader.

The Smith 21-S Non-Tilter like the 28-S is faster than other makes of this type because of the full width bucket construction.

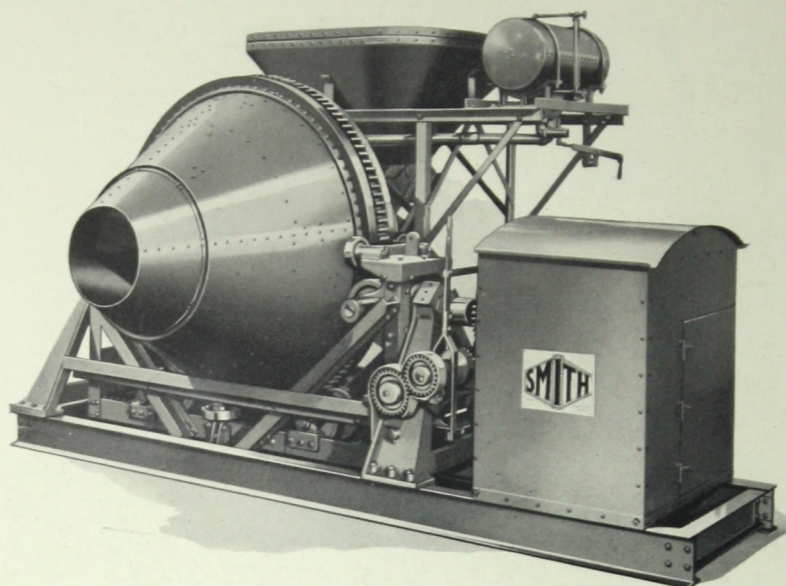
These buckets or blades extend from one side to the other and the concrete is carried symmetrically with respect to the center. The balanced batch reduces the wear on the drum, rollers and drive parts of the mixer.

When discharging, the chute extends two-thirds the distance across the drum, where it catches the entire contents of the full width buckets, giving an unusually fast discharge.

Specifications

1. 21 cu. ft. mixed capacity; 225 to 360 cu. yds. daily output; for capacity in bags per batch see table page 50.
 2. Mixing drum 59' diameter 44' long; feed and discharge openings 20". Drum turns 16 R.P.M. Built of $\frac{3}{16}$ " plate.
 3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
 4. Countershaft supported in babbitted bearings. Shaft speed 117 R.P.M.
 5. Furnished on four steel wheels or skids.
 6. Discharges in 8 seconds. Mixers equipped with power loader can be discharged from either side.
 7. Automatic water tank 32 gallons, water valve $2\frac{1}{2}$ ".
 8. Mixer can be equipped with feed chute, batch hopper or power loader.
 9. Gasoline engine 4 cyl., 35 H.P.
 10. Electric motor 15 H.P.
 11. Steam engine 14 H.P., boiler 15 H.P.
 12. Weight with batch hopper 8270 lbs., with power loader weighs 9800 lbs. Deduct 1400 lbs. if trucks not wanted.
- Detail dimensions on page 55.

28-S ONE YARD TILTER



Smith 28-S (One-Yard) Tilting Mixer—on skids with batch hopper and electric motor drive.

The Smith 28-S Tilter has the capacity required for the larger bridges, reinforced concrete buildings, piers, dry-docks, grain elevators, dams, reservoirs, retaining walls, etc., where large volumes are required or unusually fast placing of concrete is necessary.

When operated in pairs or singly, the mixer control levers can be readily extended for centralized overhead operation.

This Smith 28-S Tilting Mixer—one-yard per batch capacity—is probably the most popular mixer of the Smith line among those engaged in larger construction work.

Specifications

1. 28 cu. ft. mixed capacity; 300 to 580 cu. yds. daily output; capacity in bags per batch see table page 50.
2. Double cone tilting drum with speedy mix and discharge. Drum turns at 10 R.P.M. Built of $\frac{1}{4}$ " plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Drive shafts turn in bronze bushings. Shaft speed 105 R.P.M.
5. Furnished on skids only.
6. Discharges in 8 seconds; tilted by power from either side of mixer.
7. Automatic water tank 42 gallons; water valve, $2\frac{1}{2}$ ".
8. Can be equipped with feed chute, batch hopper or power loader.
9. Gasoline engine, 4 cyl., 35 h.p.
10. Electric motor, 20 h.p.
11. Steam engine, 18 h.p.; boiler, 20 h.p.
12. Weights,—with batch hopper and electric motor as shown—12,300 lbs.; with power loader, 15,435 lbs.
Detail dimensions on page 54.

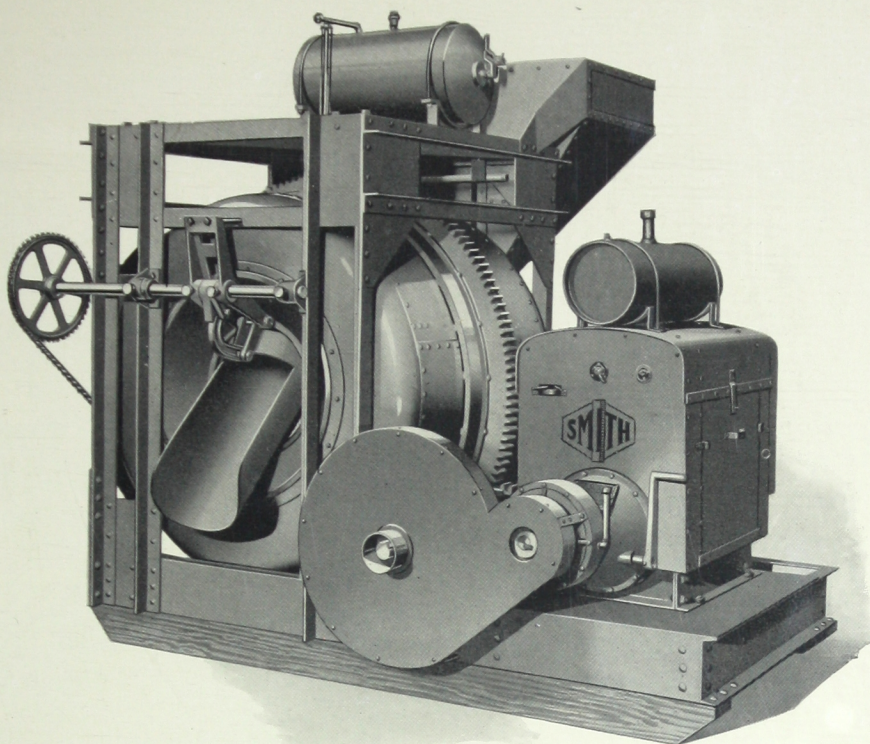
The Smith Tilter is d volume wh

The 28-S self-cleaning has the th been largel life of Smith

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28-S ONE YARD NON-TILTER



Smith 28-S Non-Tilting Mixer on skids with batch hopper, water tank and 4 cylinder gasoline engine.

The Smith 28-S Non-Tilt like its mate the 28-S Tilter is designed for use on the big jobs of large volume where fast placing is required.

The 28-S has the same fast discharge, mixing and self-cleaning features as the smaller non-tilters. It has the thorough balanced mixing action which has been largely responsible for the light wear and long life of Smith mixers.

The discharge is operated by a hand wheel, but a power discharge can be furnished at an additional price.

Specifications

1. 28 cu. ft. mixed capacity; 300 to 580 cu. yds. daily output, capacity in bags per batch see table page 50.
2. Mixing drum 64" diameter 51' long; feed and discharge openings 20". Drum turns at 16 R.P.M. Built of $\frac{3}{16}$ " plate.
3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
4. Countershaft supported in babbitted bearings. Shaft speed, 123 R.P.M.
5. Furnished on skids only.
6. Discharges in 8 to 10 seconds.
7. Automatic water tank 42 gallons, water valve $2\frac{1}{2}$ ".
8. Mixer can be equipped with feed chute or batch hopper.
9. Gasoline engine 4 cyl., 35 H.P.
10. Electric motor 20 H.P.
11. Steam engine 18 H.P., boiler 20 H.P.
12. Weight, with batch hopper and gas engine as shown 10,500 lbs.

Detail dimensions on page 55.

DUO-CONE SHAPED DRUM GIVES THOROUGH AND FAST MIXING ACTION.

WATER TANK MEASURES ACCURATELY.

DRUM MADE OF RED TANK STEEL BOILER PLATE, WITH REMOVABLE LINERS. DRUM WILL OUTLAST ENTIRE MIXER.

CENTRAL LOCATION OF GEAR RING AND ROLLER TRACK PROTECTS IT FROM FALLING DIRT AND CONCRETE.

DISCHARGE CAN BE OPERATED FROM EITHER SIDE OF MIXER

TILTING DISCHARGE EMPTIES COMPLETE BATCH IN EIGHT SECONDS

ALL STEEL LOCKABLE ENGINE HOUSING

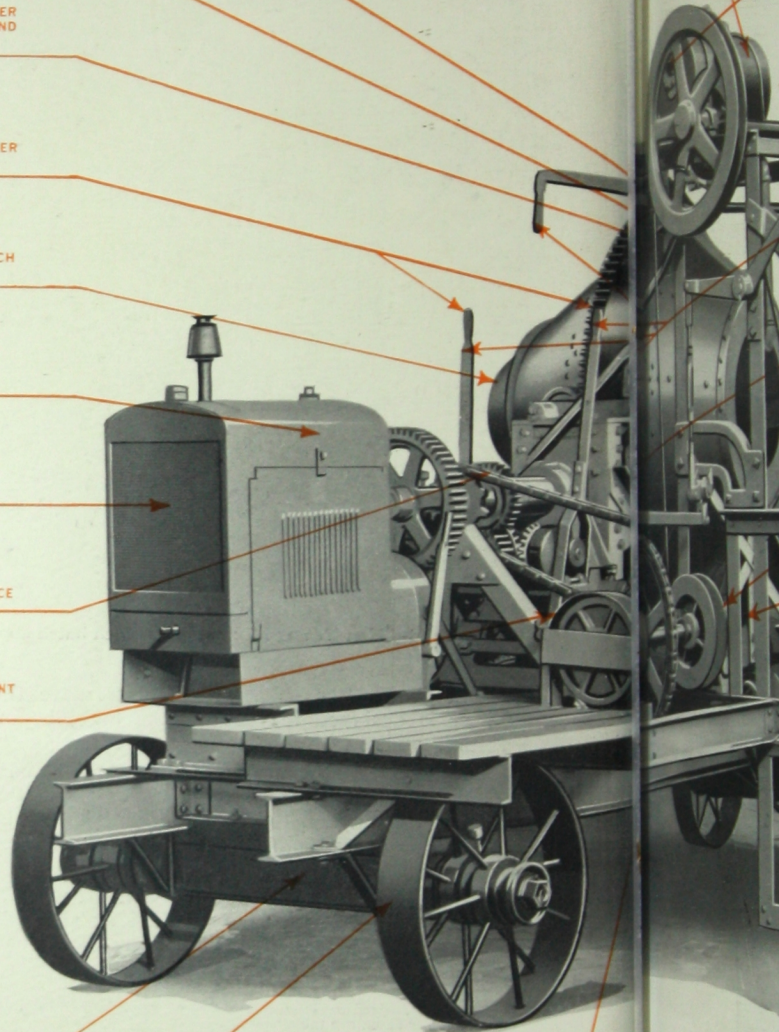
STANDARD GASOLINE ENGINE.

DISCHARGE OPERATED BY POWER TILTING DEVICE

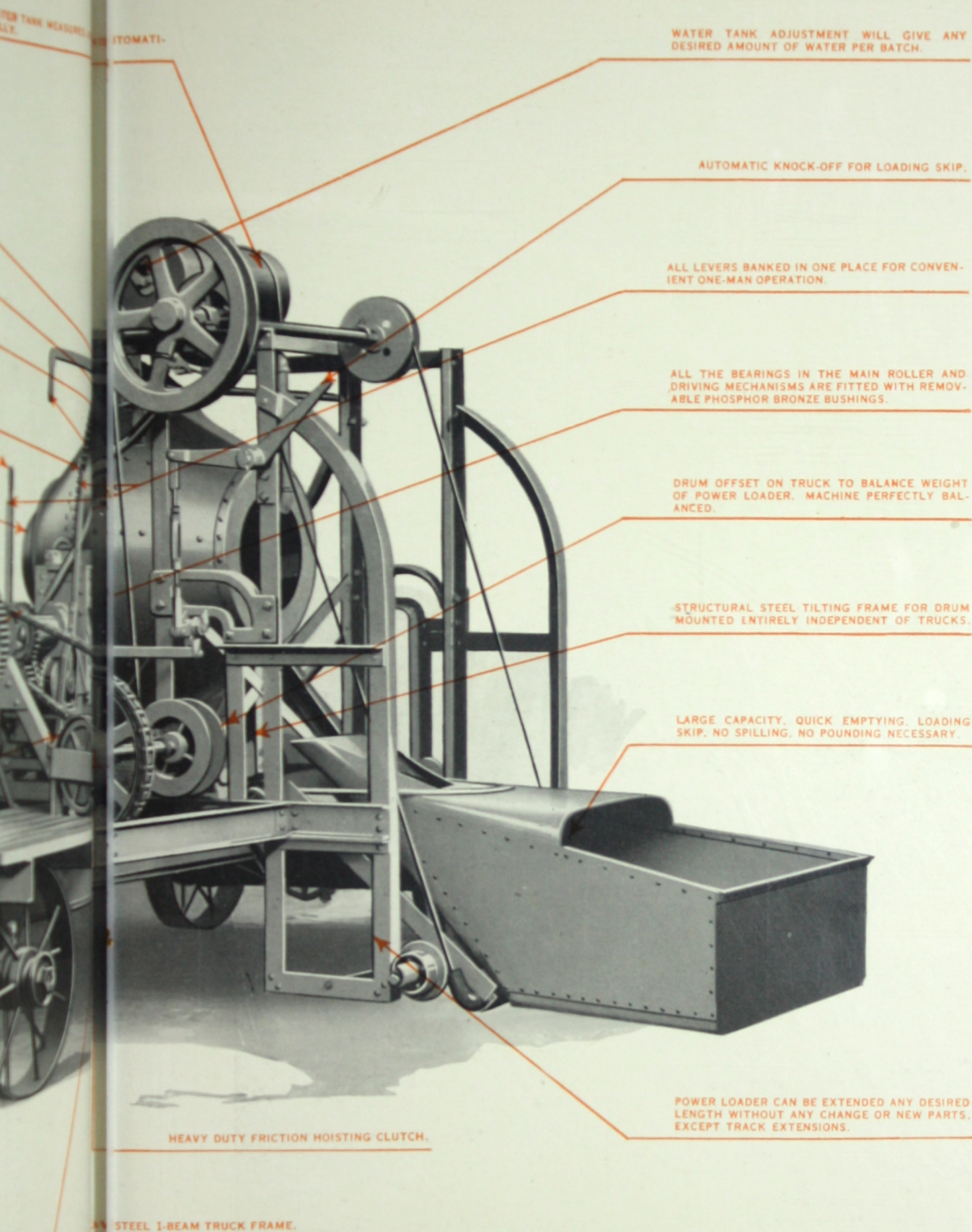
RAYBESTOS LINED BRAKE TO CONTROL DESCENT OF LOADING SKIP.

STRONG BREAK-PROOF AXLES.

LARGE DIAMETER, WIDE TIRE, ROAD WHEELS.



SMITH 14-S, 21-S, TILTING MIXER



Conowingo Project of the
Susquehanna Power Com-
pany—Mixing plant west
of river—two Smith 56-S
Tilters.

Stone & Webster, Inc.,
Construction Engineers.

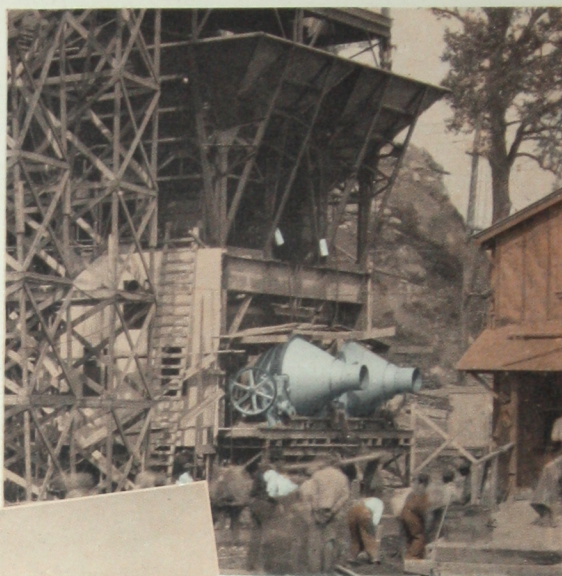


Illustration at left shows
the east side of river.
Four Smith 56-S Mixers
used here also.

Arundel Corporation,
Construction Engineers.

Below is shown the general
view of the location of this
new power dam.



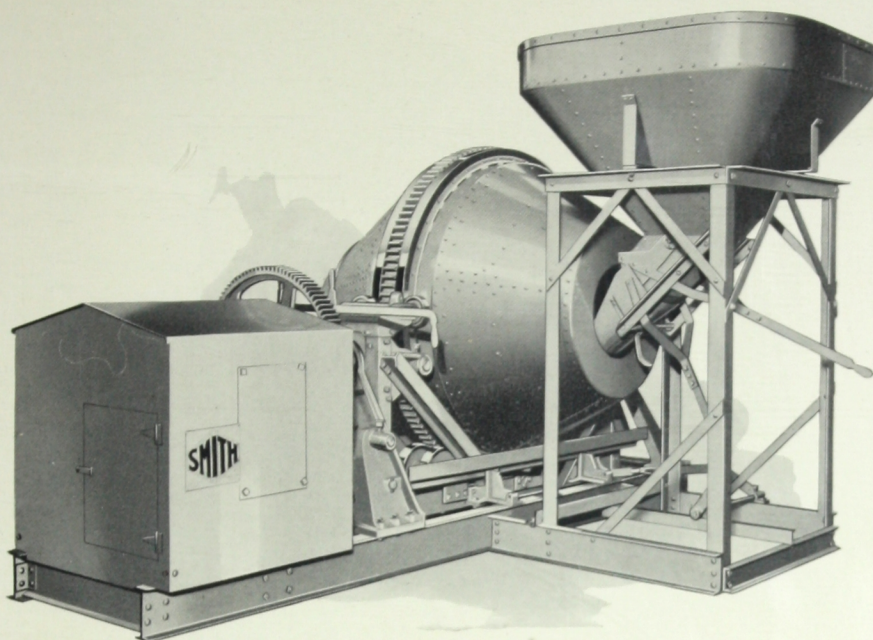
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40-S YARD AND A HALF TILTER



Smith 40-S Tilter with gated batch hopper and electric motor drive.

The 40-S Tilter is in the "big" mixer class. It is designed along the same lines as the smaller sizes and has all of the well-known Smith advantages.

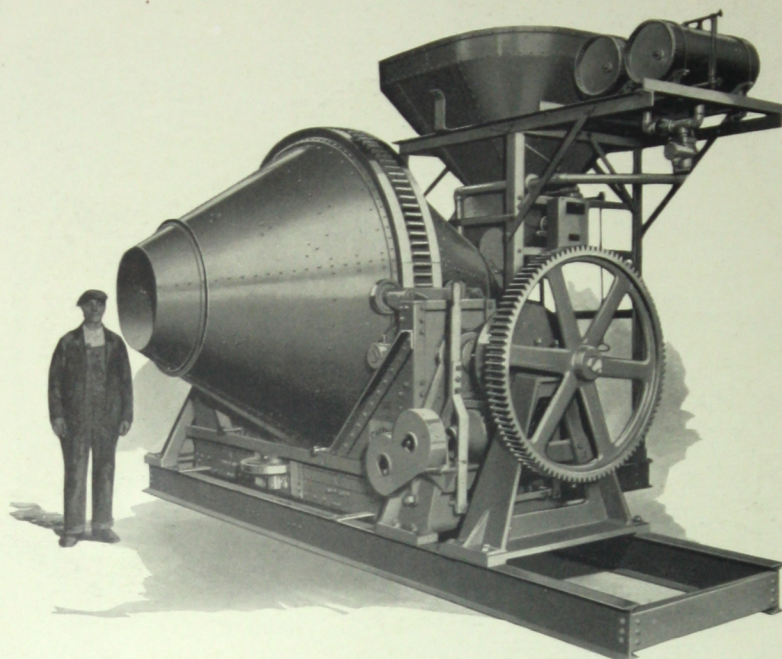
It is designed for bulk concrete jobs such as bridges, piers, sewage disposal plants, dry docks, grain elevators, dams, reservoirs and retaining walls. It has also been used with success in plants selling ready mixed concrete.

The U. S. Government Engineers, The Dupont Engineering Company, Thompson-Starrett Co., and Smith Brothers of Houston, Texas, are a few well-known users of this size.

Specifications

1. 40 cu. ft. mixed capacity; 400 to 640 cu. yds. daily output; for capacity in bags per batch see table page 50.
 2. Double cone tilting drum with speedy mix and discharge. Built of $\frac{1}{4}$ " plate; drum turns 10 R.P.M.
 3. Drum support rollers keyed to shafts. Renewable bronze bushings in shaft boxes.
 4. Drive shaft turns in bronze bushings. Shaft speed 105 R.P.M.
 5. Furnished on skids only.
 6. Discharges in 8 seconds; tilted by power from either side of mixer.
 7. Automatic water tanks, two of 32 gallons each, water valve, $2\frac{1}{2}$ ".
 8. Can be equipped with feed chute or batch hopper.
 9. Electric motor 30 H.P.
 10. Steam engine 25 H.P., boiler 30 H.P.
 11. Weight, with batch hopper and electric motor as shown 14,450 lbs.
- Detail dimensions see page 54.

56-S TWO YARD TILTER



Smith 56-S (Two Yard) Tilting Mixer—on skids, with batch hopper.

The World's Largest Mixers 56-S and 112-S Tilters

Smith two-yard and four-yard tilters are the universal choice for the unusual job where an extraordinary amount of concrete is to be placed and speedy completion required. They have been used for fifteen years on the heaviest monolithic concrete structures such as dams, sea walls, earth retaining walls, piers, dry docks and bridges.

They have the same double-cone drum construction with its speedy mixing, fast discharge, and self-cleaning features as the smaller Smith Tilters. Because the drum is tilted for discharge and the batch poured out it is possible to use occasional boulders in the aggregate making for speedy and economical production.

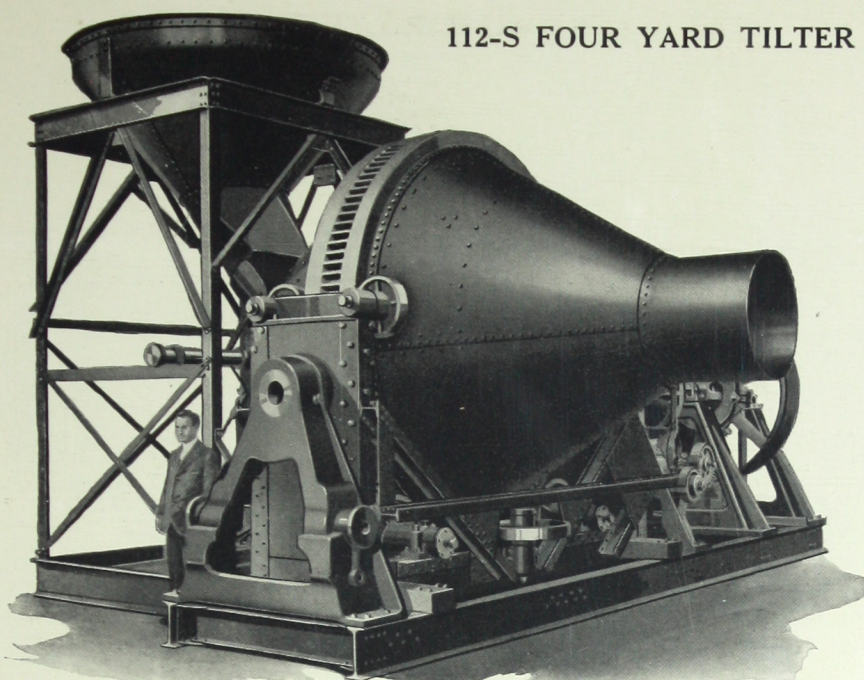
The largest single installation of these giant mixers was at the U.S. Government work on the famous Wilson Dam, at Muscle Shoals. Two four-yard tilters and six two-yard tilters poured the concrete on this great project. The Quebec Development Company at Isle Maligne, Quebec, broke all dam construction records with two four-yard Tilters. Stone & Webster used two four-yard tilters on their dam on the Chattahoochee River in Georgia. The famous Exchequer

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112-S FOUR YARD TILTER

The world's largest mixer—Smith 112-S (four-yard) Tilting Mixer.

Dam in California, was built with three two-yard Tilters by the well-known firm of Bent Bros., Los Angeles. These same mixers (without overhauling) are now being used by the Southern California Edison Co., in the construction of the Shaver Lake Dam.

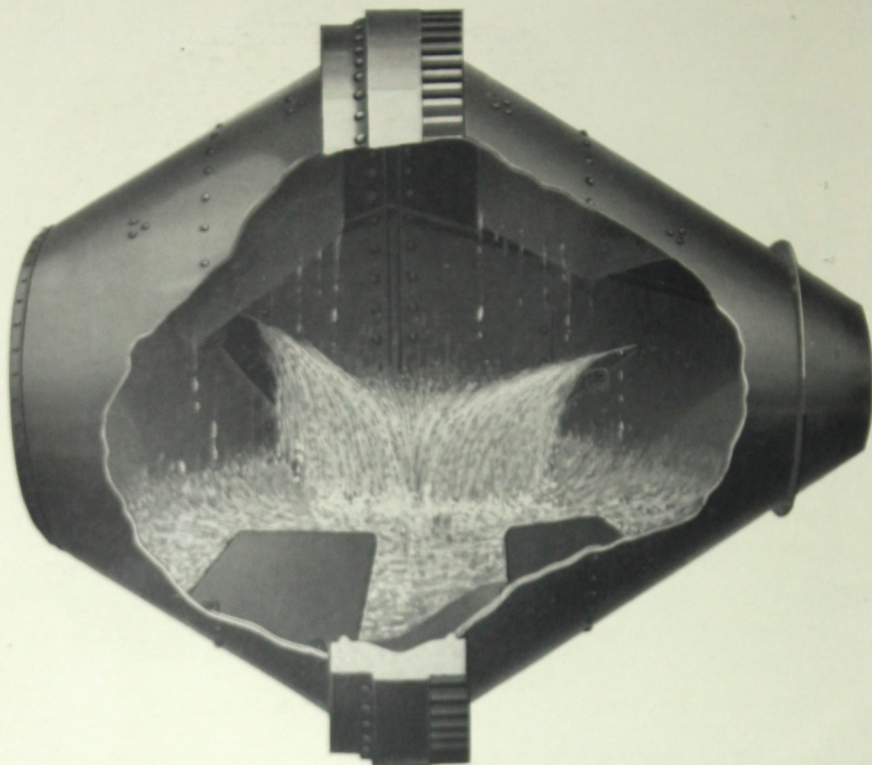
Specifications

	56-S	112-S
1. Mixed capacity per batch cu. ft.	56	112
2. Daily output cu. yds. 10 hr. day	800	1600
3. Boiler plate drum;—plate thickness in inches	$\frac{3}{4}$ "	$\frac{3}{8}$ "
4. Drum support rollers keyed to shafts; renewable bronze bushings in shaft boxes.		
5. Furnished on skids only—weight with batch hopper lbs.	20,000	48,000
6. Can be equipped with batch hopper or feed chute.		
7. Automatic water tank capacity gallons.	(2) 42	
8. Electric motor H.P.	40	75

Detail dimensions see page 54.

A few users of the world's largest mixers

Stone & Webster (Conowingo Dam)	2—	56-S
Stone & Webster (Bartlett's Ferry)	1—28-S and	2—112-S
Quebec Development Co.	2—	112-S
Dixie Const. Co., (Alabama Power Co.)	2—	112-S
U. S. Gov't., (Muscle Shoals)	6—56-S and	2—112-S
Arundel Corporation (Conowingo Dam)	4—	56-S
Bent Brothers (Exchequer Dam)	3—	56-S
D. L. Taylor & Co.	3—	56-S
General Const. Co., (Clarion Dam)	2—	56-S
Tallassee Power Co. (Aluminum Company of America)	3—	56-S
Utah Const. Co. (American Falls Dam)	2—	56-S
Wateree Power Co. (Steel and Iron Co.)	2—	56-S
Sanderson & Porter (Cheat Haven Dam)	2—	56-S
Sloss-Sheffield Steel and Iron Co.	1—28-S and	1—56-S
U. S. Engineers	1—	56-S
Carnegie Steel Co.	1—	56-S
A. Guthrie & Co. (Cushman Dam)	1—	56-S
Louisville Hydro-Electric Co.	2—28-S and	2—56-S



Showing famous "end-to-center" mixing action of the Smith Tilting Drum.

Scientific Mixing

The double-cone construction gives the concrete a gravity flow from the ends to the center of the drum where it is cut through by the mixing blades arranged in converging pairs.

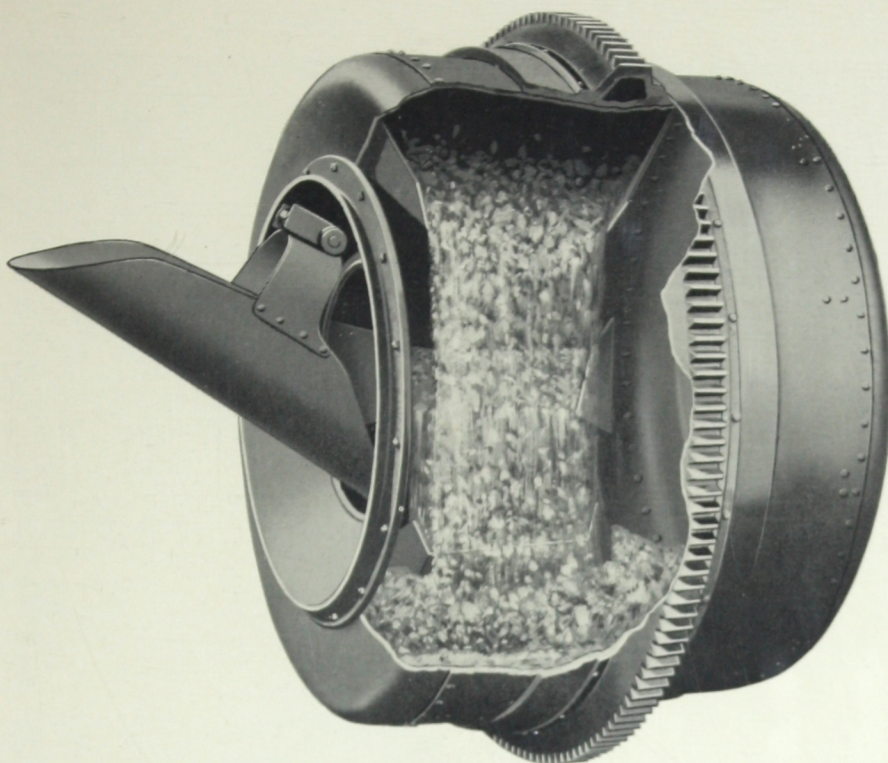
The blades carry the concrete upward with the revolution of the drum and pour it onto the drum floor where it spreads out and flows again from the ends to the center of the drum.

The unusual shape of the drum and the scientifically designed converging blades give the batch an extremely speedy, thorough mix, but the action is easy, accounting for the long life of Smith Mixers. The biggest contractors in the country claim the Smith action has never been equalled.

Pouring Discharge

No one empties a pail with a scoop. It takes too long. They turn it upside down. The Smith Tilter is discharged by tilting the drum, just as you empty the water from a bucket, and it is self-cleaning. Eight to ten seconds, the fastest discharge known, will empty any size of Smith drum. The drum is power tilted, except on the 10-S and smaller sizes, and is under easy lever control.





Smith Non-Tilt drum "end-to-center" mixing action similar to that of the tilting drum.

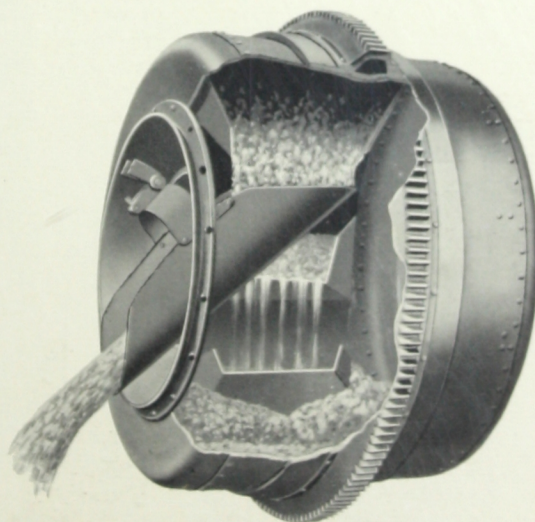
End-to-Center Action

The Smith Non-Tilting drum is patterned closely after the famous tilter drum, with converging blades extending from side to side. The batch flows from the ends to the center and is carried up with the revolution of the drum and poured from the buckets to the drum floor where it spreads out and the action repeated.

The mix is speedy and thorough, but the action is easy; making for long life of the mixer. There are but six full width buckets in the largest Smith Non-Tilter, as compared to fifteen or more blades in most other drums. The Smith drum is practically self-cleaning because the openings are large and the blades are mounted off the drum floor allowing complete scouring with water and stone.

Fast Discharge

The use of the full width buckets means large instead of small buckets for discharge and with the chute extending two-thirds of the distance across the drum, the discharge is extremely fast. The discharge spout and operating parts are entirely outside the drum during mixing, and they are not damaged by the concrete.



The steep-angle chute catches the entire batch and discharges it from the drum almost instantaneously.



Ohio State University Stadium, Columbus, Ohio—E. H. Latham Co., General Contractors—built with Smith Tilters.
One of many similar structures built with Smith Mixers.

B

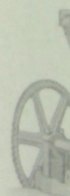
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BATCH HOPPERS

The batch hoppers shown on this page for tilting and non-tilting mixers are designed for use in conjunction with overhead bins and measuring devices. They permit the assembly of a second batch while a batch is being mixed in the drum. Large hopper openings allow speedy charge and discharge.

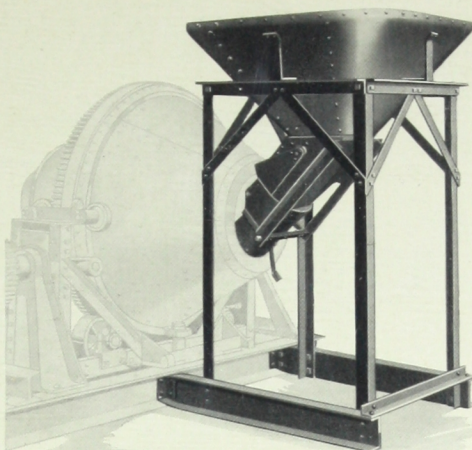
They are provided with lever-operated sliding gates and if desired the control lever can be extended above the top level of the hopper. In such cases the other control levers are also extended to permit operation of one or more mixers from a central overhead point.

Batch hoppers for tilting mixers are supported on separate frames and the hopper is sold with or without frame. Hoppers for non-tilting mixers are sold complete with attaching members.

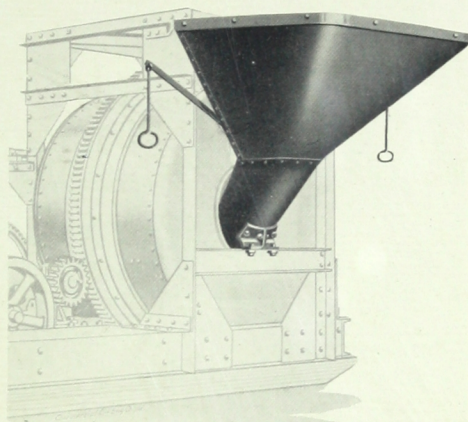
FEED CHUTES

The feed chutes shown herewith are not gated and serve merely as guide chutes for material discharged from overhead bins. The chute for the tilting mixer tilts with the drum.

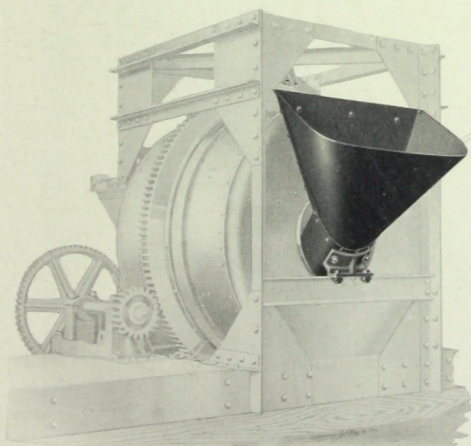
Occasionally a platform is built and the aggregate dumped directly into the chute from wheelbarrows.



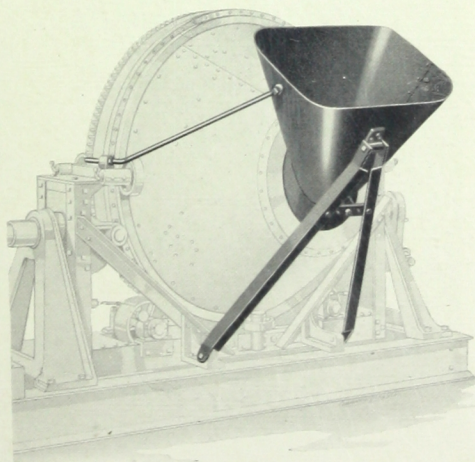
Batch Hopper for Tilting Mixer.



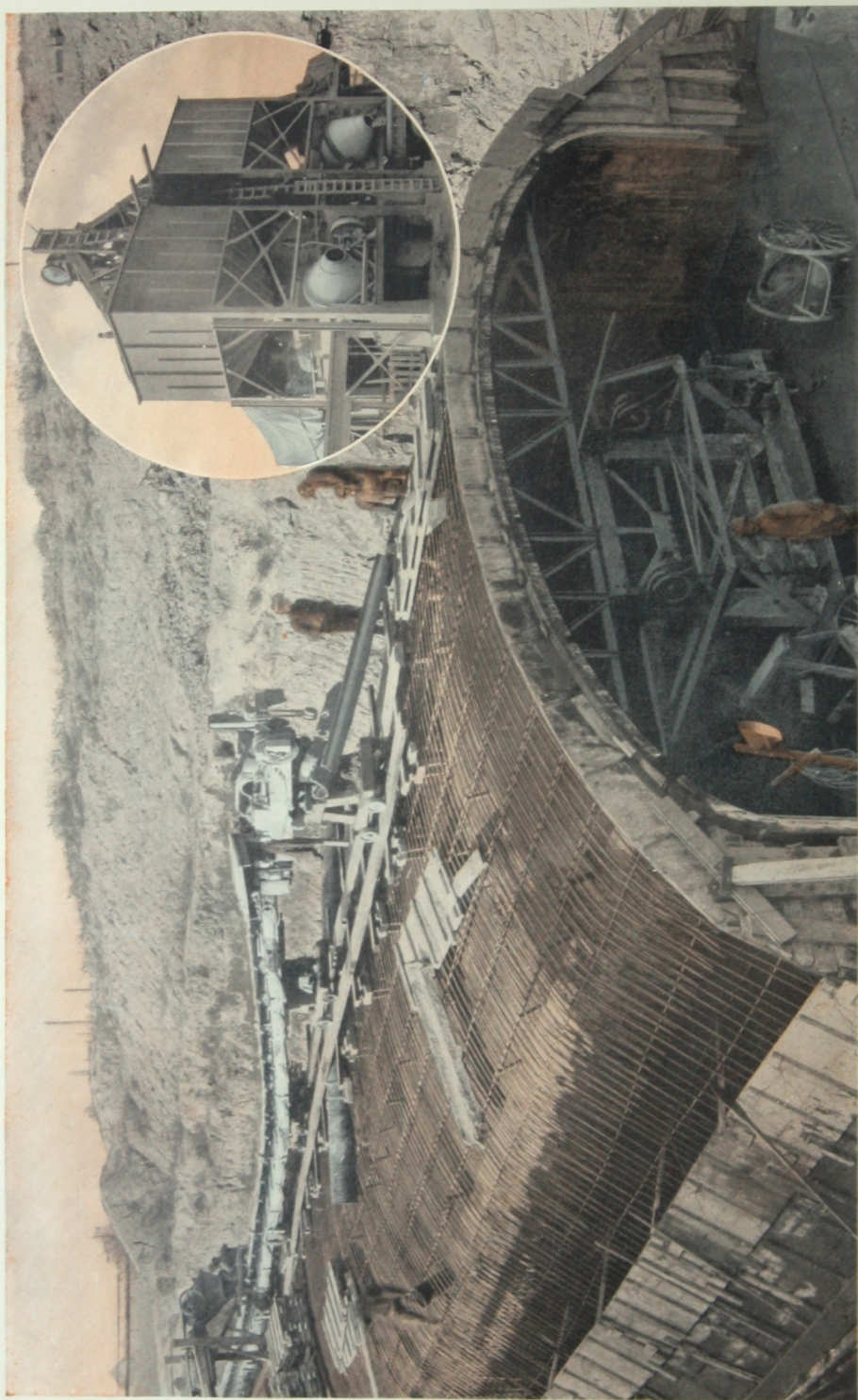
Batch Hopper for Non-Tilting Mixer.



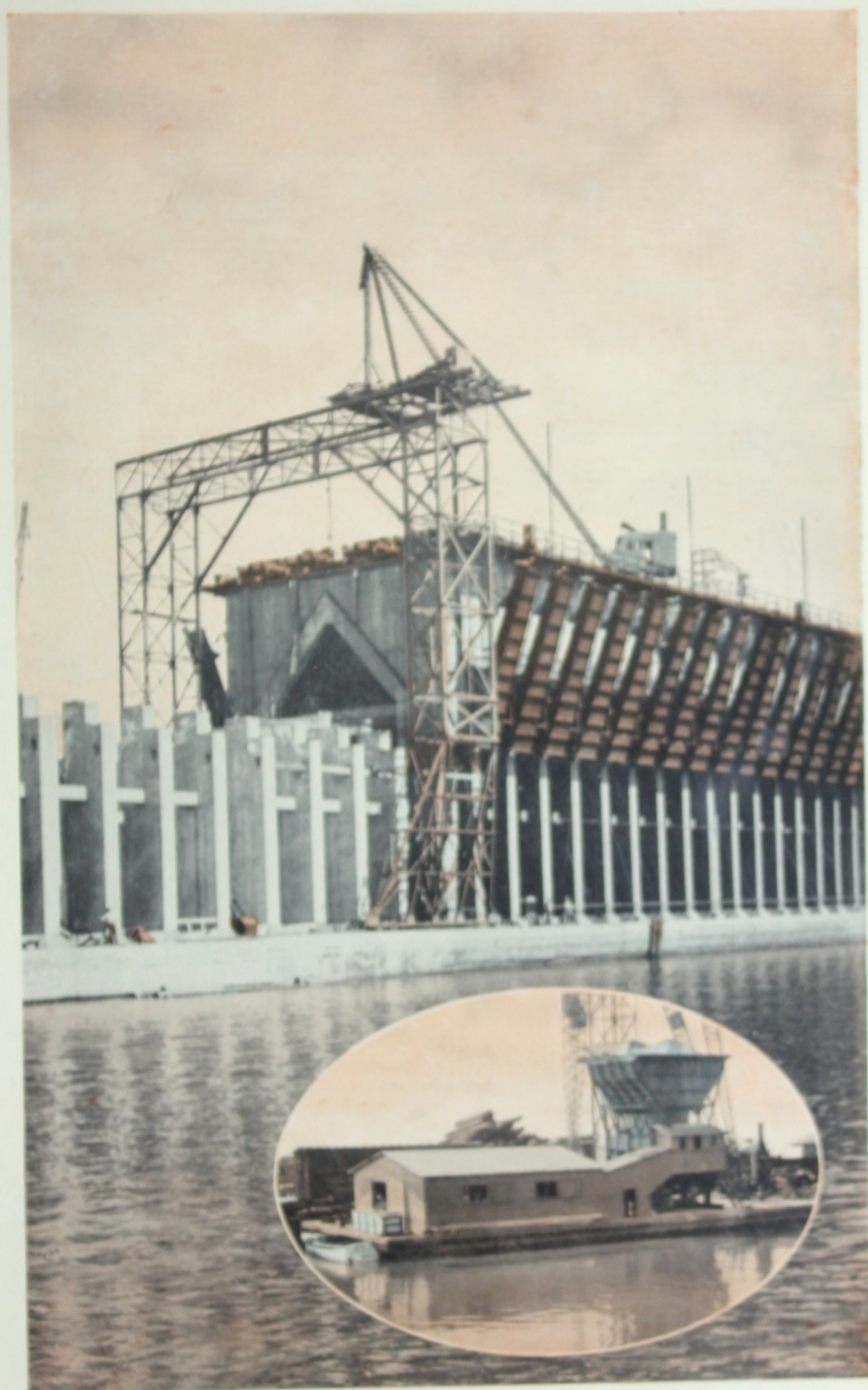
Feed Chute for Non-Tilting Mixer.



Feed Chute for Tilting Mixer.



Scajaquada Creek Drain, Buffalo, built with two 28-S Smith Tilters—Frank L. Cohen, Contractor.

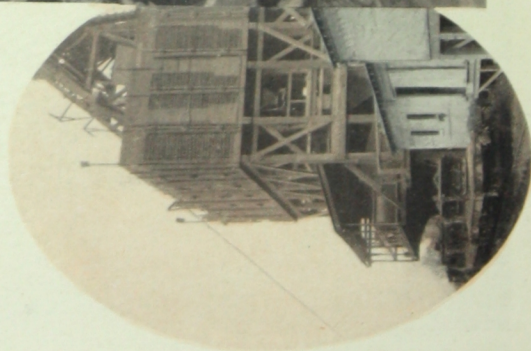


Soo Line ore dock Ashland, Wis., Foley Bros., Peppard & Fulton, Contractors,
using a one yard Smith Non-Tilting Mixer.

Scajasquada Creek Drain, Buffalo, built with two 28-S Smith Tilters—Frank L. Cohen, Contractor.



Two 56-S Smith Tilting Mixers used by Sanderson & Porter in the construction of Cheat Haven Dam for the West Virginia Power and Transmission Co. on the Cheat River in Pennsylvania. Note the easy and centralized control of the tilting levers.



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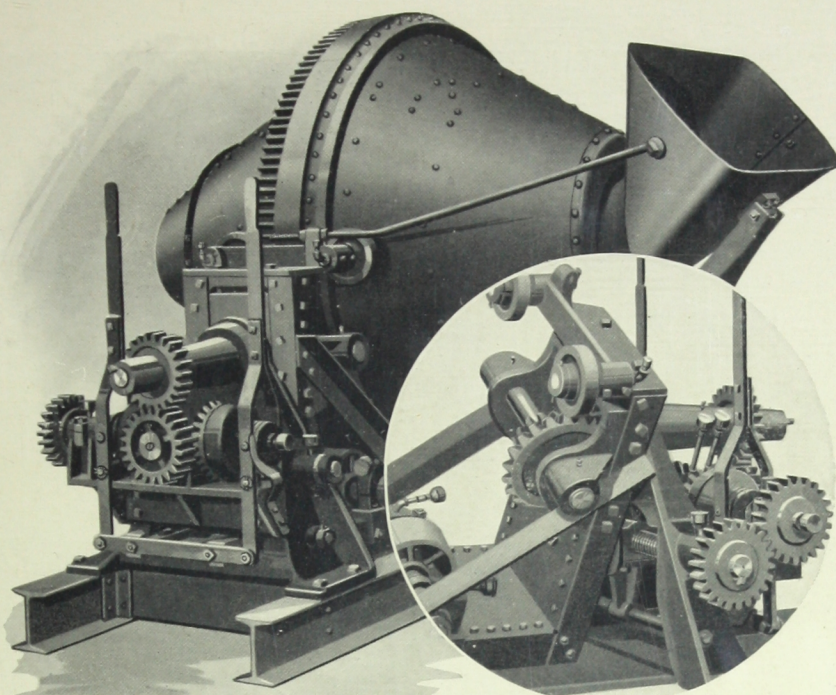
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Simple Smith Tilting Discharge. The operator pulls the lever—power does the rest.

Power Tilt Unit

All Smith Tilters above the 10-S size are power tilted for discharge. The unit consists of a nut and screw driven through a train of gears. Friction clutches which are automatically knocked out are used.

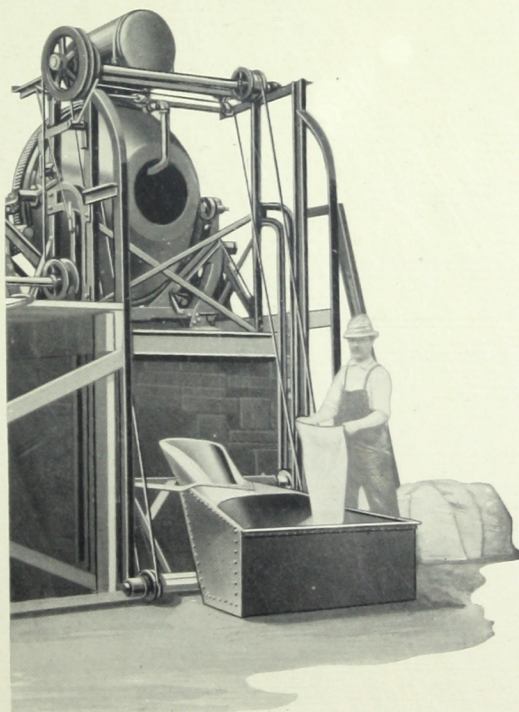
They are under easy lever control, and the drum can be partially tilted to discharge a wheelbarrowful or cartful, or tilted completely to discharge the full batch;—making Smith Tilters the easiest and fastest discharging mixer for any type of work.

Extensible Track Loader for 14-S, 21-S, 28-S Mixers

The roller tracks of the Smith non-pivoted power loader can be extended to serve as a material elevator at slight additional expense.

The use of the extensible loader eliminates the cost of a material elevator and allows placing the mixer so as to give a high discharge height for discharging into trucks, chuting, etc.

All loaders are equipped with automatic knockout and band brake.



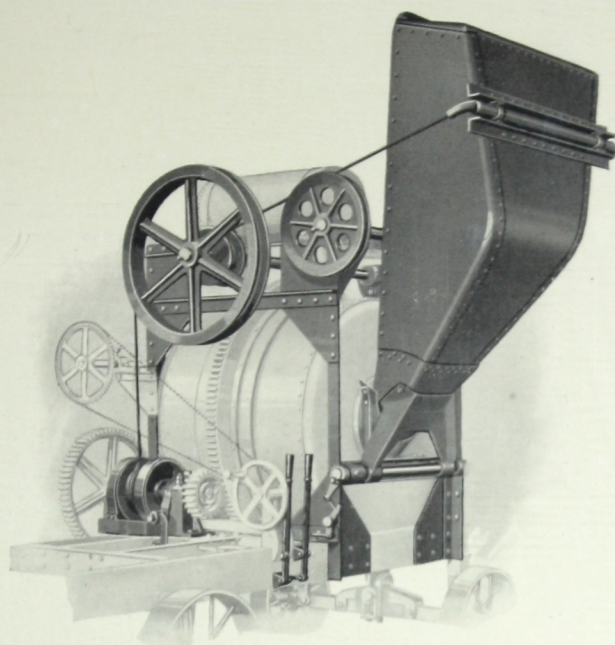
Smith extensible track loader; extensions from 1 to 30 feet can be provided.



Saguenay River Power Dam at Isle Maligne, Quebec. Quebec Development Co.—builders. Two 112-S (four yard) Smith Tilters used.

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Pivoted Power Loader with Smith Cable equalizer.

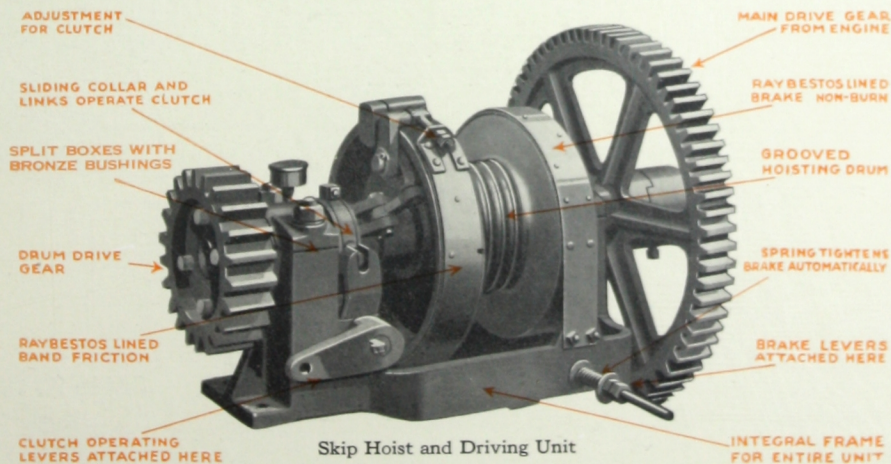
Pivoted Power Loader

Smith Non-tilting Mixers up to and including the 21-S size can be equipped with power loader and the ability to assemble a batch in the skip with a batch in the drum increases mixer capacity about 30 per cent.

Sturdy Construction

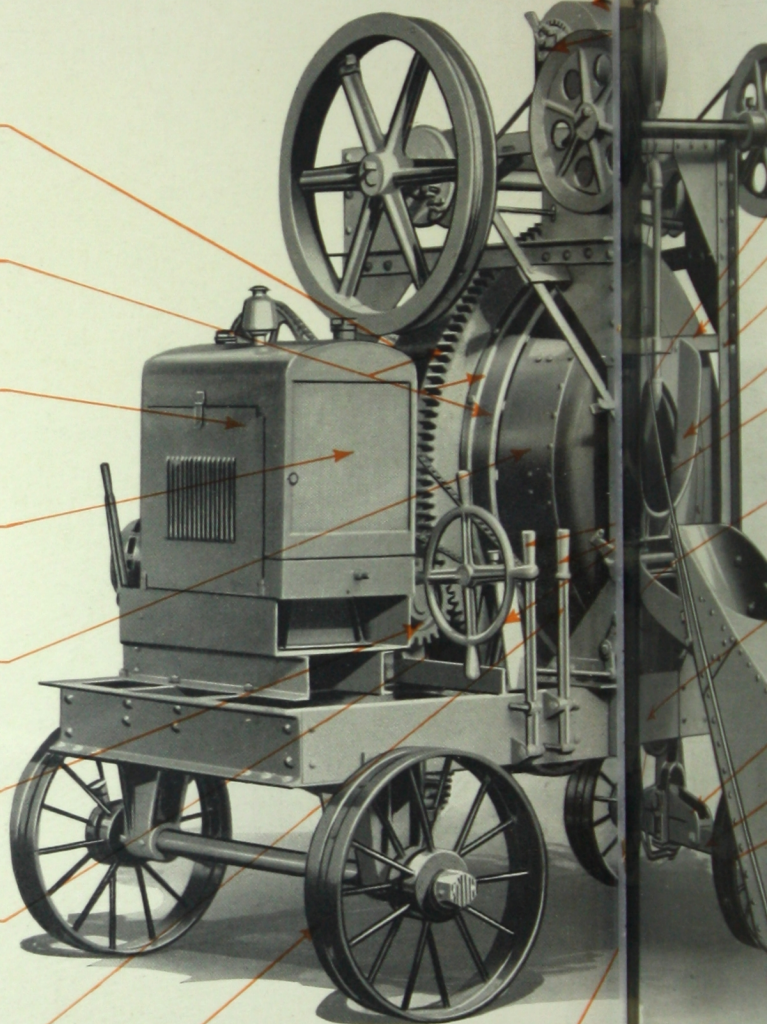
The upper frame is built of heavy angles and gusset plates and is hot riveted throughout. The loading skip is large and rises to the high angle of 55° , the material entering the drum in a swift clean slide. The levers are grouped for one-man operation, including operation of the discharge spout from the feed side.

The hoist drum, drum drive, and reduction gear form a single well designed unit. Their alignment is preserved by the heavy unit support casting.

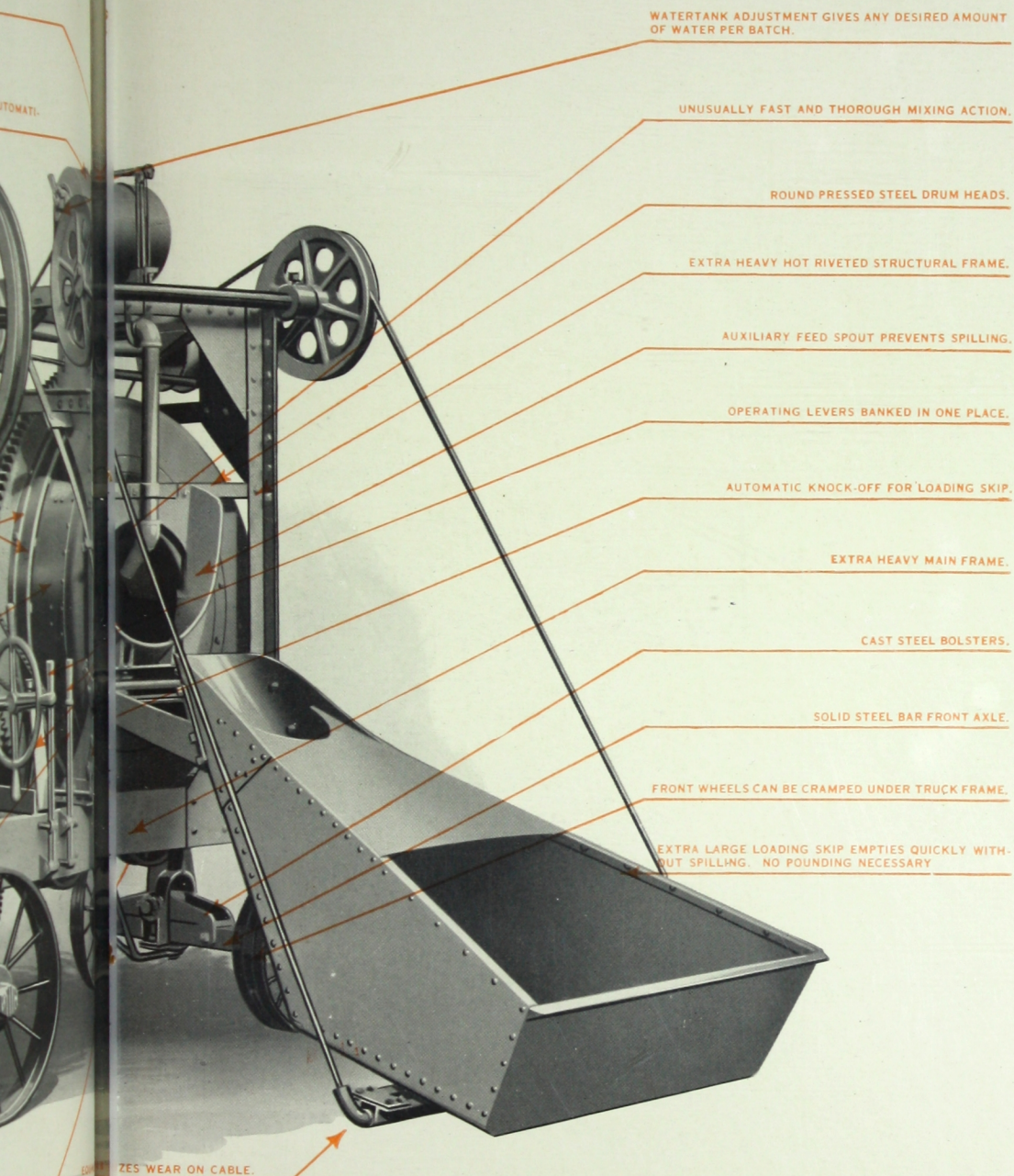


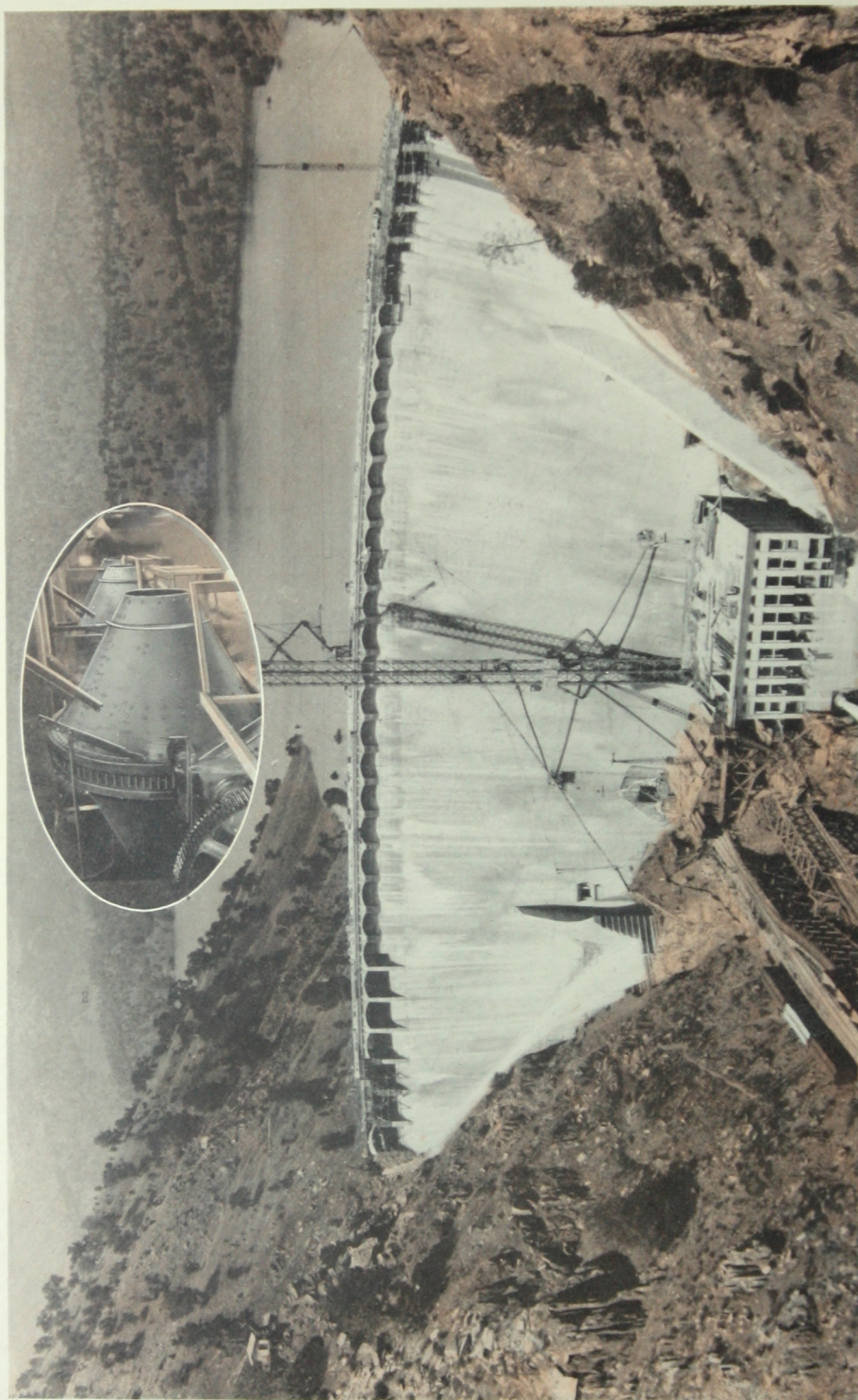
Skip Hoist and Driving Unit

- LOW OVERALL HEIGHT.
- WATER TANK MEASURES ACCURATELY AND AUTOMATICALLY.
- FULL BATCH DISCHARGED IN EIGHT SECONDS.
- CENTRALLY LOCATED DRUM RING AND ROLLER TRACKS, PROTECTED FROM DIRT AND CONCRETE.
- ALL STEEL LOCKABLE ENGINE HOUSING.
- STANDARD GASOLINE ENGINE.
- BOILER PLATE STEEL DRUM.
- POWERFUL BAND FRICTION HOISTING CLUTCH.
- DISCHARGE CAN BE OPERATED FROM EITHER SIDE OF MIXER.
- AUTOMATIC ACTING SKIP BRAKE.
- EXTRA STRONG, LARGE DIAMETER, WIDE TIRE ROAD WHEELS.
- EQUAL WEAR ON CABLE.
- HEAVY MAIN ROLLERS AND ROLLER TRACKS, FITTED WITH REMOVABLE AND MACHINED DUST CAPS.



SMITH 14-S AND 21-S TILTING MIXER





Three Smith 56-S Tilting Mixers used in construction of Exchequer Dam, Merced Irrigation District, Calif.—Bent Bros., Inc., Contractors. These same mixers (without overhauling) now being used on Shaver Lake Dam Construction by Southern California Edison Co.

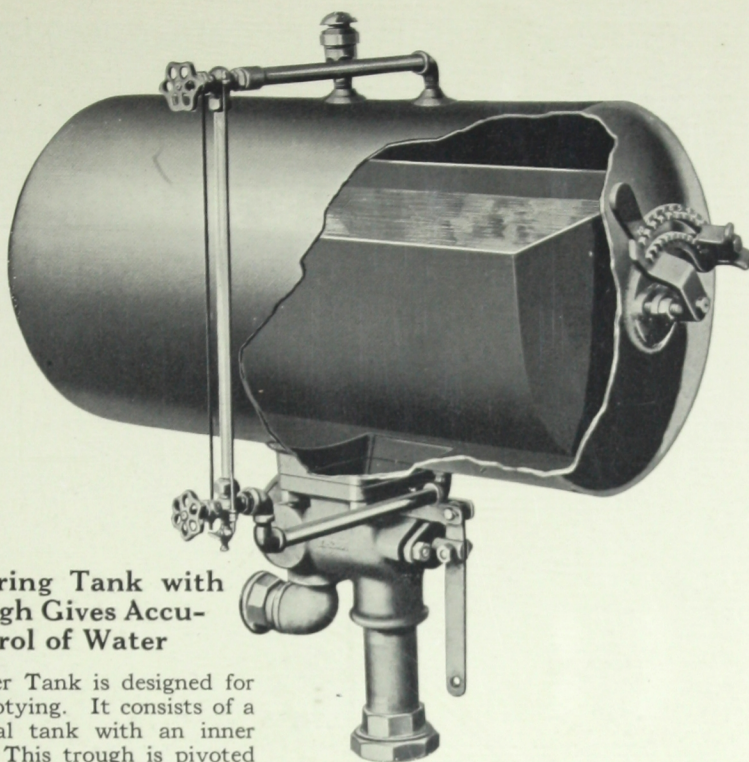
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Water Measuring Tank with Tilting Trough Gives Accurate Control of Water

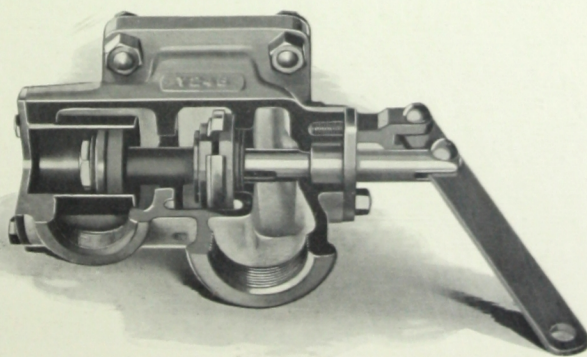
The Smith Water Tank is designed for fast filling and emptying. It consists of a standard cylindrical tank with an inner open top trough. This trough is pivoted at both ends to allow for tilting. With the top horizontal the inner trough retains its maximum amount of water and the minimum amount can be drained from the tank proper. When it is desired to draw a greater quantity of water from the tank proper, the inner trough is tilted in which position it retains less water making a greater amount available for discharge. A graduated sector and lock on the outside of the tank controls the tilting of the inner trough.

The water enters and is discharged thru the opening in the bottom of the tank making for speedy operation and allowing the tank to automatically clear itself of sediment.

Smith Balanced Valve

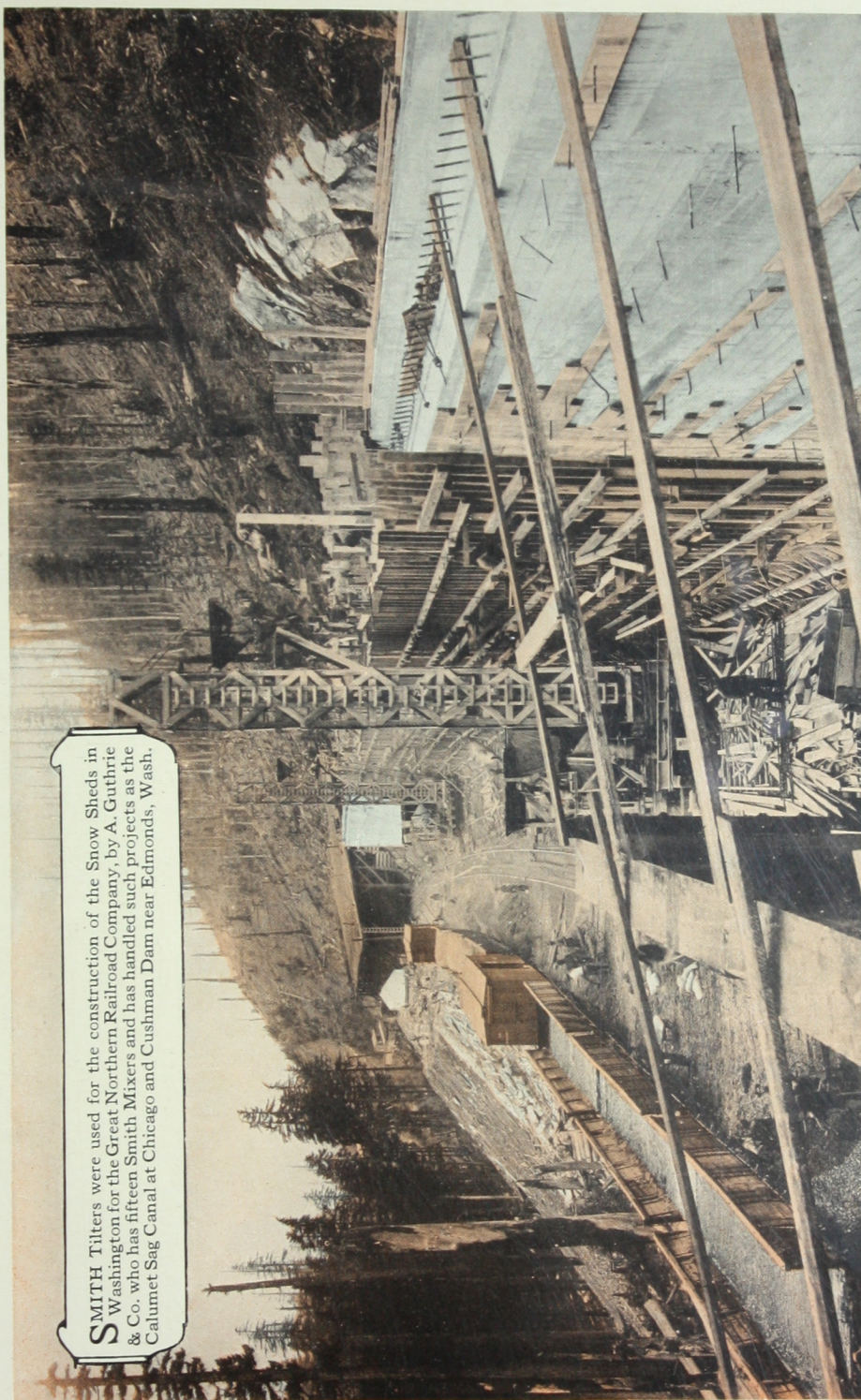
The patented Smith piston type valve is self cleaning and non-leaking. The seating surfaces are rubber against machined metal. The rubber discs give long service and are easily replaceable.

It is balanced for easy opening and closing. The Smith Balanced Valve has eliminated a constant source of trouble on mixers and pavers.





The "Sea Going" Railroad—Florida East Coast R. R. 2-Mile Bridge from Long Key towards Key West—12 Smith Mixers Used.



SMITH Tilters were used for the construction of the Snow Sheds in Washington for the Great Northern Railroad Company, by A. Guthrie & Co. who has fifteen Smith Mixers and has handled such projects as the Calumet Sag Canal at Chicago and Cushman Dam near Edmonds, Wash.

Walls for snow sheds Great Northern R. R. in Washington—A. Guthrie & Co., St. Paul, contractors, users of 15 Smith Mixers.



No wasted moments with the 6-bag Smith 27-E PAVER on the job. The operator on a Smith Paver with all controls centralized accurately governs all motions,—swings, the boom, dumps the concrete just where it is wanted. The road being paved is the Saw Mill River Parkway—a four width road—near Yonkers, N.Y.—Carlo Petrillo Contractor.

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Smith 27-E Paver owned by J. W. Zempter & Co., with special tower, elevating bucket, and hopper—building the Galveston sea wall—an unusual use of a paver.

SMITH 27-E (Six Bag) PAVERS

A study of the Smith Paver quickly reveals the fact that quality, simplicity and speed were the only considerations entering into its design. Cost was not considered—we have always refused to build a cheap machine of any kind. The tendency of the times in all fields is toward design which will give speed and dependability with the simplest possible mechanism.

Fast Charge and Discharge

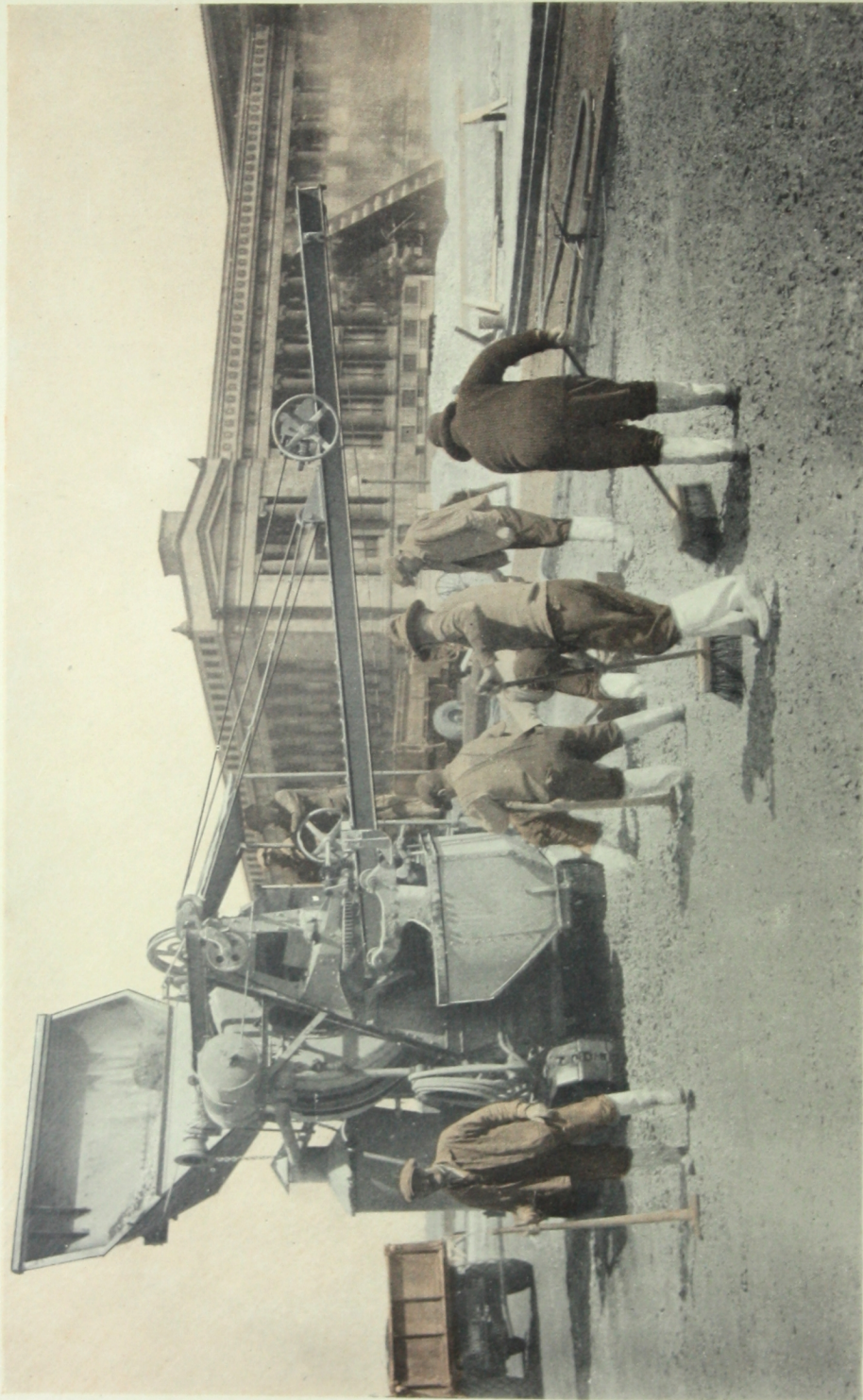
The mixing time for city street and country road work is now almost universally fixed by specifications with the result that the only opportunities for saving time are in fast charging and discharging of the drum and easy and fast handling of the paver.

The famous Smith Double Pivoted Skip rises to a height of 57 degrees and the skip is clear when it reaches the top. In discharging, the chute is swung in two-thirds of the way across the drum where it catches the contents of the big full-width discharge buckets. The batch is discharged in 8 to 11 seconds.

Easy Control and Simplicity

The control levers are hand high and are all within easy reach without the operator moving a step;—making for easy and speedy all-day handling because the operator is not quickly fatigued.

Chances for breakdowns are reduced because the Smith has fewer parts, and sturdier construction due



One of several Smith Pavers owned by the American Asphalt Paving Co., paving the outer driveway in Grant Park, Chicago.



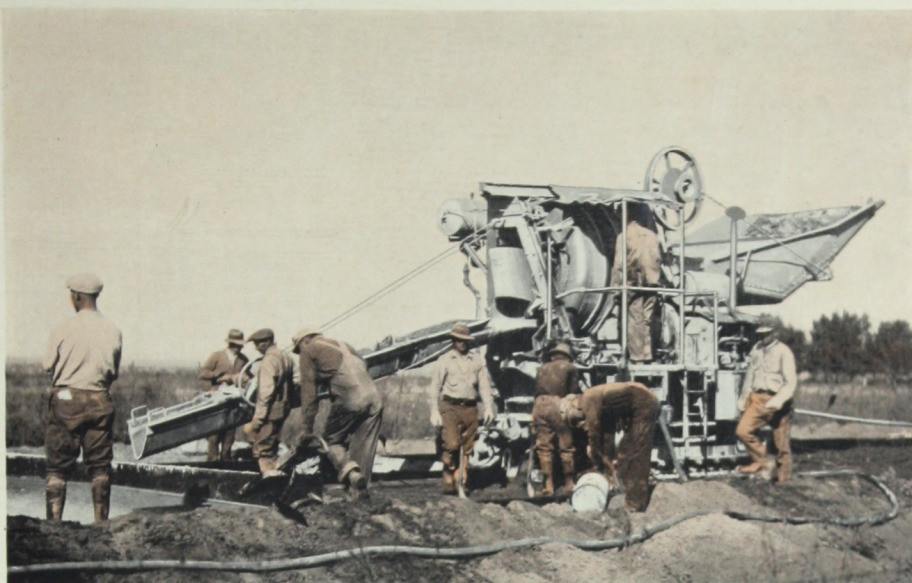
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Smith 27-E, six-bag Paver owned by H. C. Lallier Construction Co., of Denver operating on road near Fort Morgan, Colorado. The chute is used in this case in place of boom and bucket.

to the grouping of all drives in two straight lines; one above and one below the platform. There are but 9 drive gears on the entire machine, as compared to 14 to 20 gears or sprockets on most other makes. The small number of gears means a corresponding small number of shafts, clutches and support members—all representing additional sources of trouble.

Sturdy Unit Frame

The frame of the Smith Paver is scientifically designed to meet all strains and is built of heavy channels and gusset plates, hot riveted throughout, with no weak bolted or collapsible portions. In spite of its solid construction, it is lower than all other types. A solid unit frame means perfect alignment of drives and long uninterrupted operation.

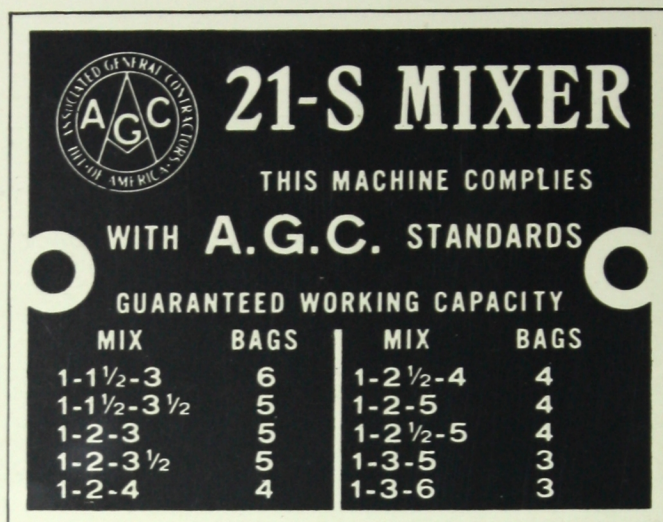
The Engineers' Choice

Many of the larger contractors when buying pavers rely on the judgments of their mechanical superintendents and operating men as to which is the simplest, strongest and most easily handled. In cases where pavers have been compared at the annual Road Show or at the factories, Smiths are usually selected and they are in use by the biggest contractors in all parts of the country.

Auxiliary Equipment

Smith Pavers can be furnished on four steel wheels, four rubber tired wheels for city use, or full length tractions. An 11 or 14 foot swivel chute or boom and bucket distributor can be provided.

LOOK FOR THIS PLATE ON SMITH MIXERS



The above is a facsimile of the official plate supplied by the Associated General Contractors to mixer manufacturers who conform to A. G. C. mixer standards.

A. G. C. Concrete Mixer Ratings

Adopted by Associated General Contractors of America in conjunction with Concrete Mixer Manufacturers.

MAXIMUM CAPACITY OF STANDARD MACHINES IN FULL BAGS PER BATCH

(Ratings apply with mixers on grades up to eight per cent.)

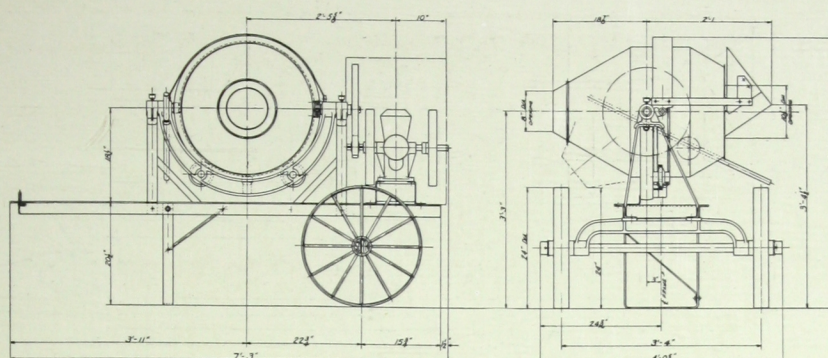
Mix Proportions	Building Mixers							Paver
	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	27-E
1-1½-3.....	1	1	2	3	4	6	8	7
1-1½-3½.....	½	1	1	2	3	5	7	7
1-2-3.....	½	1	1	2	3	5	7	7
1-1½-3½.....	½	1	1	2	3	5	7	6
1-2-3½.....	½	1	1	2	3	5	7	6
1-2-4.....	½	1	1	2	3	4	6	5
1-2½-4.....	½	1	1	2	3	4	6	5
1-2-5.....	½	½	1	2	3	4	6	5
1-2½-5.....	½	½	1	1	2	4	5	5
1-3-5.....	½	½	1	1	2	3	5	4
1-3-6.....	½	½	1	1	2	3	4	4

RESULTANT CONCRETE OF FULL-SACK BATCHES ABOVE

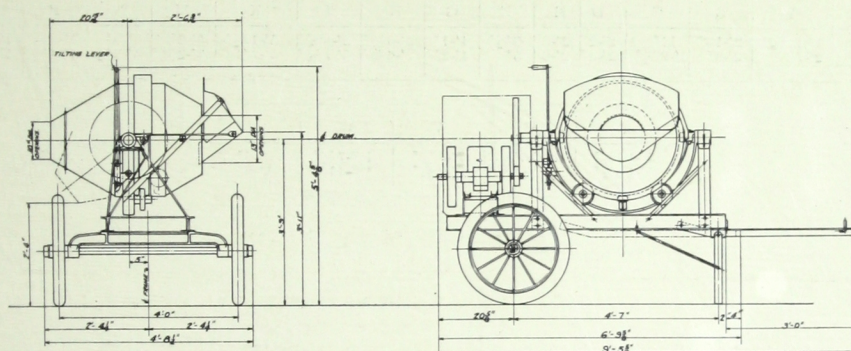
(Ratings apply with mixers on grades up to eight per cent.)

Mix Proportions	Building Mixers							Paver
	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	27-E
1-1½-3.....	3.75	3.75	7.50	11.25	15.00	22.50	30.00	24.85
1-1½-3½.....	2.10	4.20	4.20	8.40	12.60	21.00	29.40	27.02
1-2-3.....	2.10	4.20	4.20	8.40	12.60	21.00	29.40	27.23
1-1½-3½.....	2.15	4.30	4.30	8.60	12.90	21.50	30.10	27.88
1-2-3½.....	2.20	4.40	4.40	8.80	13.20	22.00	30.80	28.20
1-2-4.....	2.35	4.70	4.70	9.40	14.10	18.80	28.20	27.12
1-2½-4.....	2.50	5.00	5.00	10.00	15.00	20.00	30.00	24.25
1-2-5.....	2.65	2.65	5.30	10.60	10.60	21.20	31.80	25.65
1-2½-5.....	2.85	2.85	5.70	5.70	11.40	22.80	28.50	27.35
1-3-5.....	3.05	3.05	6.00	6.10	12.20	18.30	30.50	23.32
1-3-6.....	3.45	3.45	6.90	6.90	13.80	20.70	27.60	26.00

DIMENSIONS — 2½-S AND 3½-S TILTERS

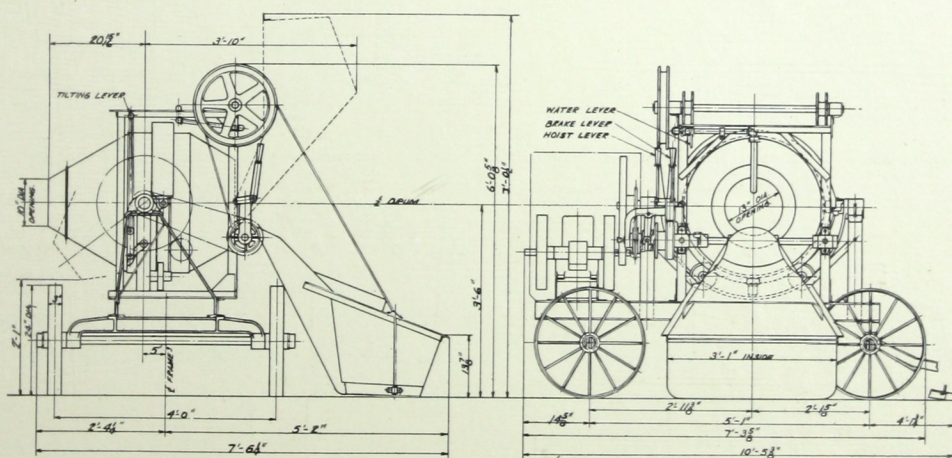


2½-S Mascot (Tilter)



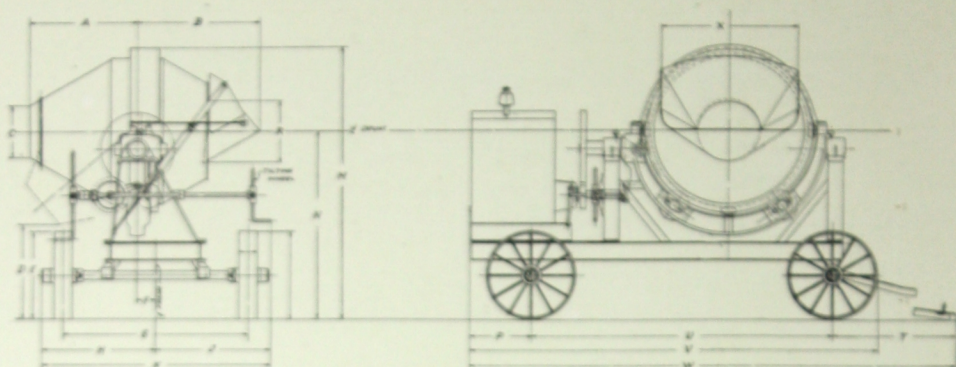
3½-S Tilter

For truck dimensions, on four wheels, see cut below.



3½-S Tilter with power loader on four wheel trucks

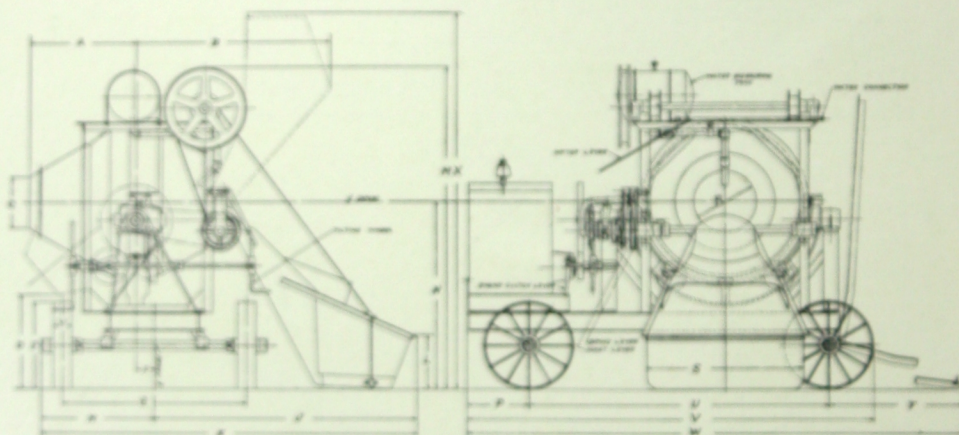
DIMENSIONS — 5-S, 7-S AND 10-S TILTERS



5-S and 7-S Tilters with Low-charger Hopper

Mixer	A	B	C	D	E	F	G	H	J	K	M	N	P	R
5-S	1'-11 3/4"	2'-10"	11"	2'-2"	2'-0"	6 1/2"	4'-1"	2'-5 1/4"	2'-8 1/4"	5'-1 1/4"	5'-6"	3'-0"	1'-2 3/4"	1'-3"
7-S	2'-2"	2'-0"	1'-2 3/4"	2'-2"	2'-0"	5"	4'-2"	2'-6 3/4"	2'-7 3/4"	5'-0"	6'-2 3/4"	4'-3 3/4"	1'-4 3/4"	1'-5"

T	U	V	W	X
5'-10 3/4"	5'-6"	7'-8 3/4"	12'-7 1/4"	3'-0"
5'-10 3/4"	6'-8"	9'-0 3/4"	13'-11 1/4"	3'-0"



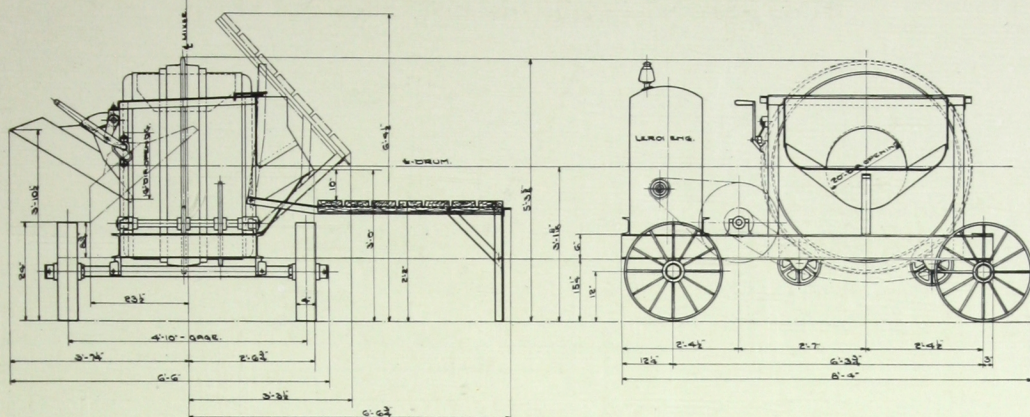
5-S, 7-S and 10-S Tilter with Power Loader

Mixer	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
5-S	1'-11 3/4"	4'-1 3/4"	11"	2'-2"	2'-0"	6 1/2"	4'-1"	2'-5 1/4"	2'-7 1/4"	8'-2 1/4"	1'-2"	6'-7 3/4"	3'-0"	1'-2 3/4"	1'-3"
7-S	2'-2"	4'-0"	1'-0 1/4"	2'-2"	2'-0"	5"	4'-2"	2'-6 3/4"	2'-11"	8'-5 3/4"	1'-3"	7'-4 3/4"	4'-3 3/4"	1'-4 3/4"	1'-5"
10-S	2'-0 1/2"	5'-2"	1'-0 1/2"	2'-4"	2'-0"	6"	5'-0"	3'-0 1/2"	7'-10 1/2"	10'-10 1/4"	1'-1"	9'-0"	5'-0 1/2"	2'-4 1/2"	1'-0"

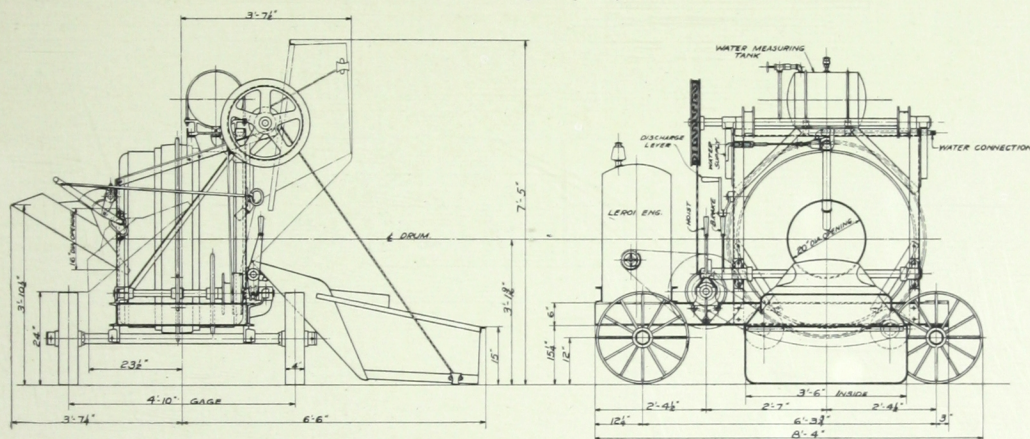
S	T	U	V	W	X	Y
3'-2"	5'-10 3/4"	5'-6"	7'-8 3/4"	12'-7 1/4"	7'-7"	4"
3'-4"	5'-10 3/4"	6'-8"	9'-0 3/4"	13'-11 1/4"	8'-7"	5"
4'-0"	6'-0"	7'-3"	10'-7 3/4"	15'-7 3/4"	11'-1 3/4"	6"

*Height with skip raised.

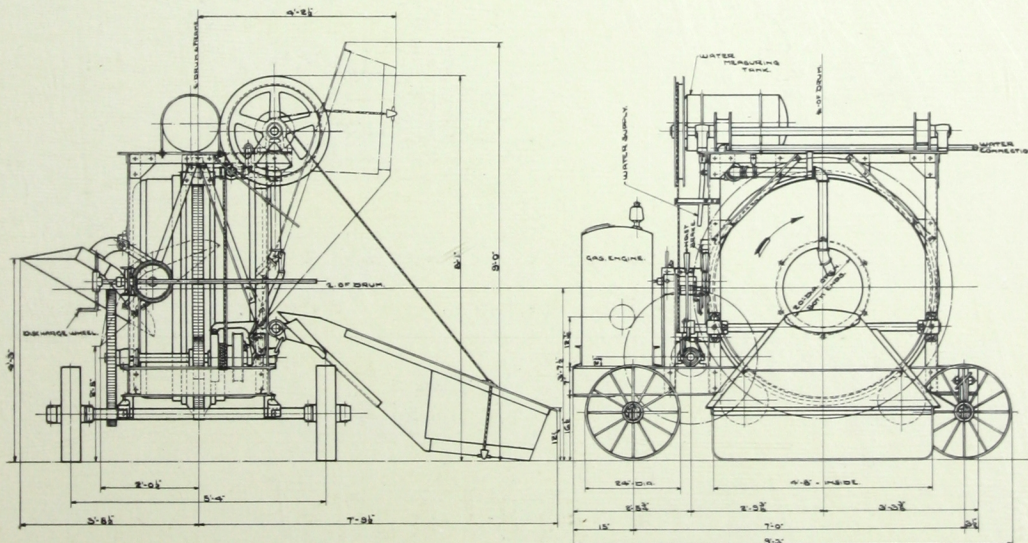
DIMENSIONS — 7-S and 10-S NON-TILTER



Low charger (7-S)

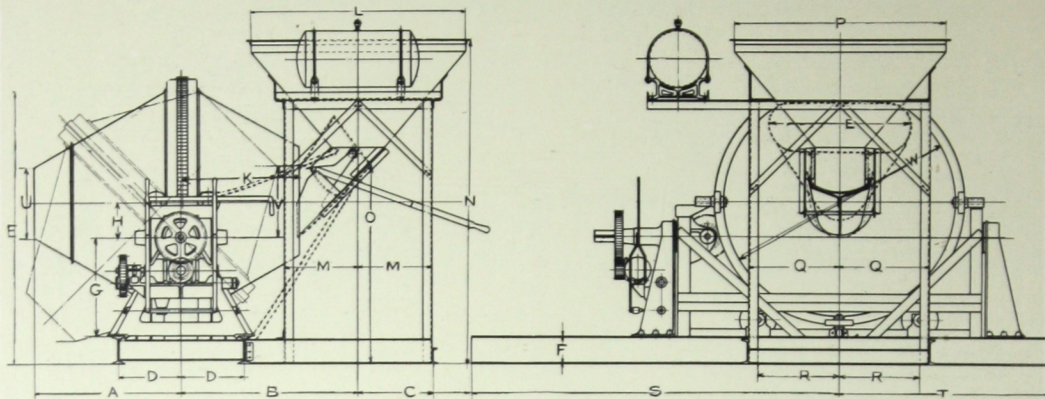


With Power Loader (7-S)



With Power Loader (10-S)

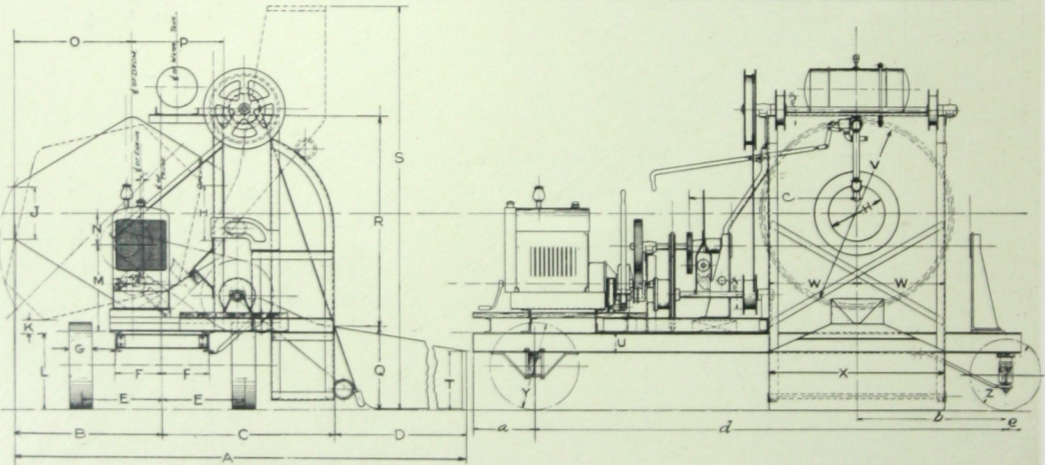
†DIMENSIONS — SMITH TILTING MIXERS



With Gated Batch Hopper

Mixer No.	A	B	C	D	F	G	H	K	L	M
14-S	3'-4 1/2"	3'-11"	1'-11"	1'-4"	7"	2'-2"	11"	2'-7 1/2"	5'-0 1/2"	1'-9"
21-S	3'-8"	4'-1 1/2"	1'-11 1/2"	1'-5"	8"	2'-6"	11"	2'-10"	5'-6"	1'-9"
28-S	4'-0"	4'-6 3/4"	2'-13 1/4"	1'-8 1/2"	9"	2'-8 1/2"	11 1/2"	3'-2"	5'-10"	2'-0"
40-S	4'-4 1/2"	4'-6 3/4"	2'-13 1/4"	1'-8 1/2"	9"	2'-8 1/2"	11 1/2"	3'-2 1/2"	5'-10"	2'-0"
56-S	5'-0"	6'-11"	2'-10"	1'-11"	10"	3'-4 1/2"	1'-3"	4'-3"	7'-0"	2'-6"
112-S	6'-0 1/2"	8'-4"	3'-10"	2'-9"	12"	4'-6"	1'-6"	5'-0"	9'-0"	3'-8"

Mixer No.	N	O	P	Q	R	S Eng. or Motor only	S With Stm. Eng. & Boiler	T	U	V	W Inside
14-S	7'-3"	4'-10"	5'-2"	1'-9"	1'-11"	9'-4 3/4"	15'-6"	4'-2 1/2"	1'-6"	1'-7"	5'-6 1/4"
21-S	7'-11"	5'-1"	5'-6"	1'-9"	2'-0 1/2"	10'-6 3/4"	17'-5"	5'-0 3/4"	1'-7"	1'-7"	5'-11"
28-S	8'-5"	5'-8 1/4"	5'-10"	2'-5"	2'-2"	9'-10 1/2"	20'-0"	5'-2 1/4"	1'-10"	1'-10"	6'-9 1/2"
40-S	9'-3"	6'-7"	5'-10"	2'-5"	2'-2"	9'-10 1/2"	20'-0"	5'-2 1/4"	1'-10"	1'-10"	6'-9 1/2"
56-S	12'-3 1/4"	7'-0"	7'-0"	2'-6"	2'-7"	11'-9 1/2"	22'-0"	6'-2 1/2"	2'-4"	2'-4"	8'-4"
112-S	15'-5"	9'-0"	9'-0"	2'-6"	2'-7"	17'-2"	27'-0"	7'-10"	2'-8"	2'-8"	9'-10"



With Power Loader

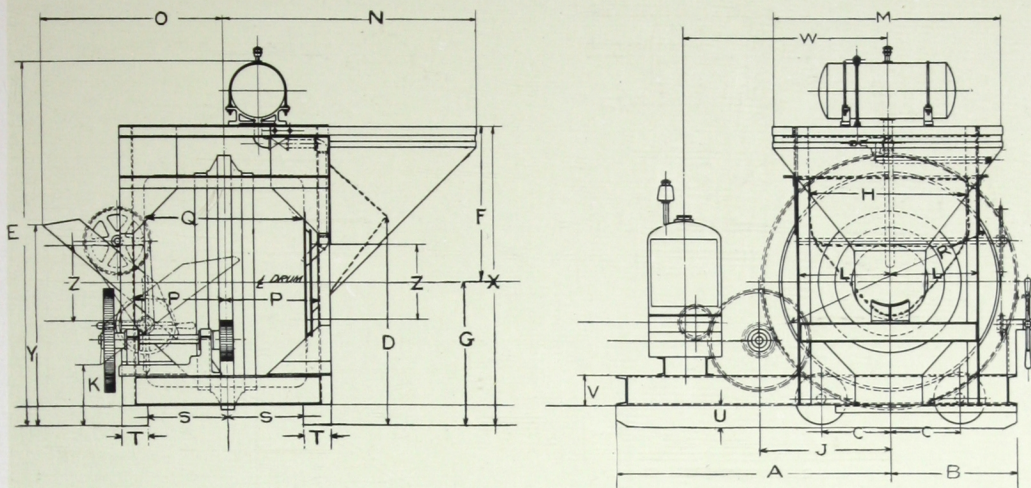
Mixer No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
14-S	13'-5 1/4"	4'-2 3/4"	4'-10 1/4"	4'-3 3/4"	2'-4"	1'-4"	8'-6 1/2"	1'-7"	1'-6"	4"	2'-2 3/4"	2'-6"	11"	3'-4 1/2"	2'-7 1/2"	2'-5 1/4"
21-S	14'-7 3/4"	4'-6 3/4"	5'-7 3/4"	4'-6"	2'-6"	1'-5"	8'-8 1/2"	1'-7"	1'-7"	4 1/2"	2'-5 1/2"	2'-9"	11"	3'-8"	2'-10"	2'-8 1/2"
28-S	16'-8 1/2"	5'-3"	6'-2"	5'-3 1/2"	3'-3"	1'-8 1/2"	.....	1'-10"	1'-10"	5 1/2"	.....	3'-2 1/2"	11 1/2"	4'-0 1/2"	3'-2"	2'-11"

No. Mixer	R	S	T	U	V	W	X	Y	Z	a	b	c	d Eng. or Motor only	d with stm. eng & boiler	e
14-S	6'-0 1/2"	11'-7 3/4"	1'-8"	7"	5'-6 1/4"	2'-6"	5'-0"	2'-6"	2'-0"	1'-9"	4'-2 3/4"	4'-8 3/4"	7'-6 3/4"	9'-1 3/4"	5"
21-S	7'-2"	12'-9 3/4"	1'-10"	8"	5'-11"	2'-10"	5'-6"	3'-0"	2'-6"	3'-0"	4'-7 3/4"	5'-1 1/2"	8'-6 3/4"	9'-4 3/4"	5"
28-S	7'-10 1/2"	14'-8"	2'-0"	9"	6'-9 1/2"	3'-1"	6'-0"	.....	.....	.....	.....	5'-10"	.....	.....	3 1/2"

*Rear—†Front

†Note:—Dimensions for 2 1/2-S, 5-S, 7-S and 10-S Tilters given on page 51 and 52.

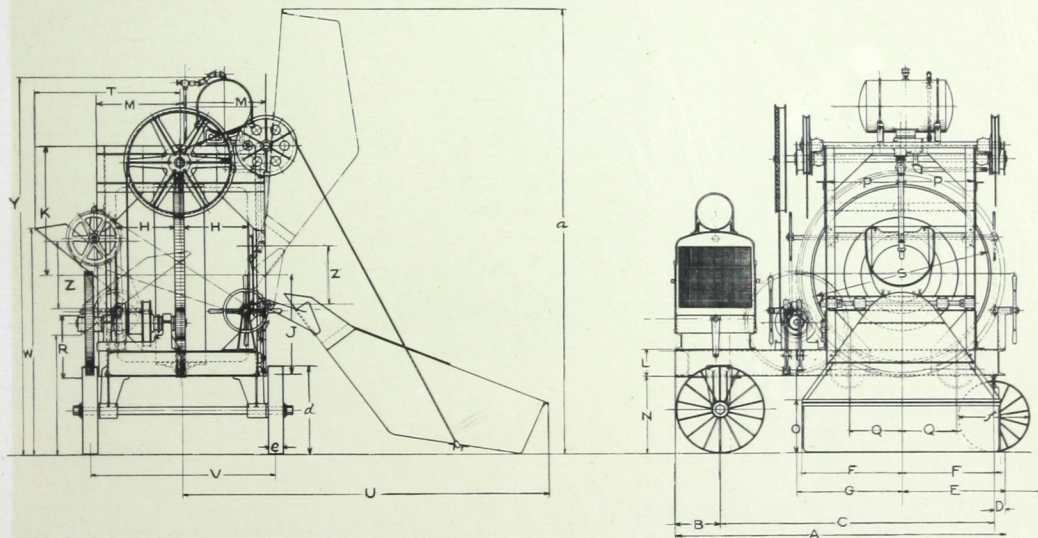
DIMENSIONS, 14-S, 21-S and 28-S NON-TILTERS



With Batch Hopper or Feed Chute

Mixer	A Eng. or Motor only	A For Stm. Eng. & Boiler	B	C	D	E	F	G	H	J	L	M Inside
14-S	6'-0"	8'-10 1/4"	2'-9 1/4"	1'-6"	4'-1 3/8"	8'-0 3/8"	3'-5 1/2"	3'-2 1/2"	3'-4"	2'-10 1/2"	2'-0"	5'-0"
21-S	6'-5"	9'-5 3/8"	2'-11 3/8"	1'-6 1/2"	4'-7 7/8"	8'-6"	4'-1 1/2"	3'-4 3/8"	3'-6"	3'-0"	2'-1 1/2"	5'-4"
28-S	9'-5 1/2"	.....	3'-4 3/4"	1'-8"	4'-10 3/16"	9'-1"	6'-8 1/2"	3'-7 3/4"	3'-10"	3'-0 3/4"	2'-3 3/4"	5'-6"

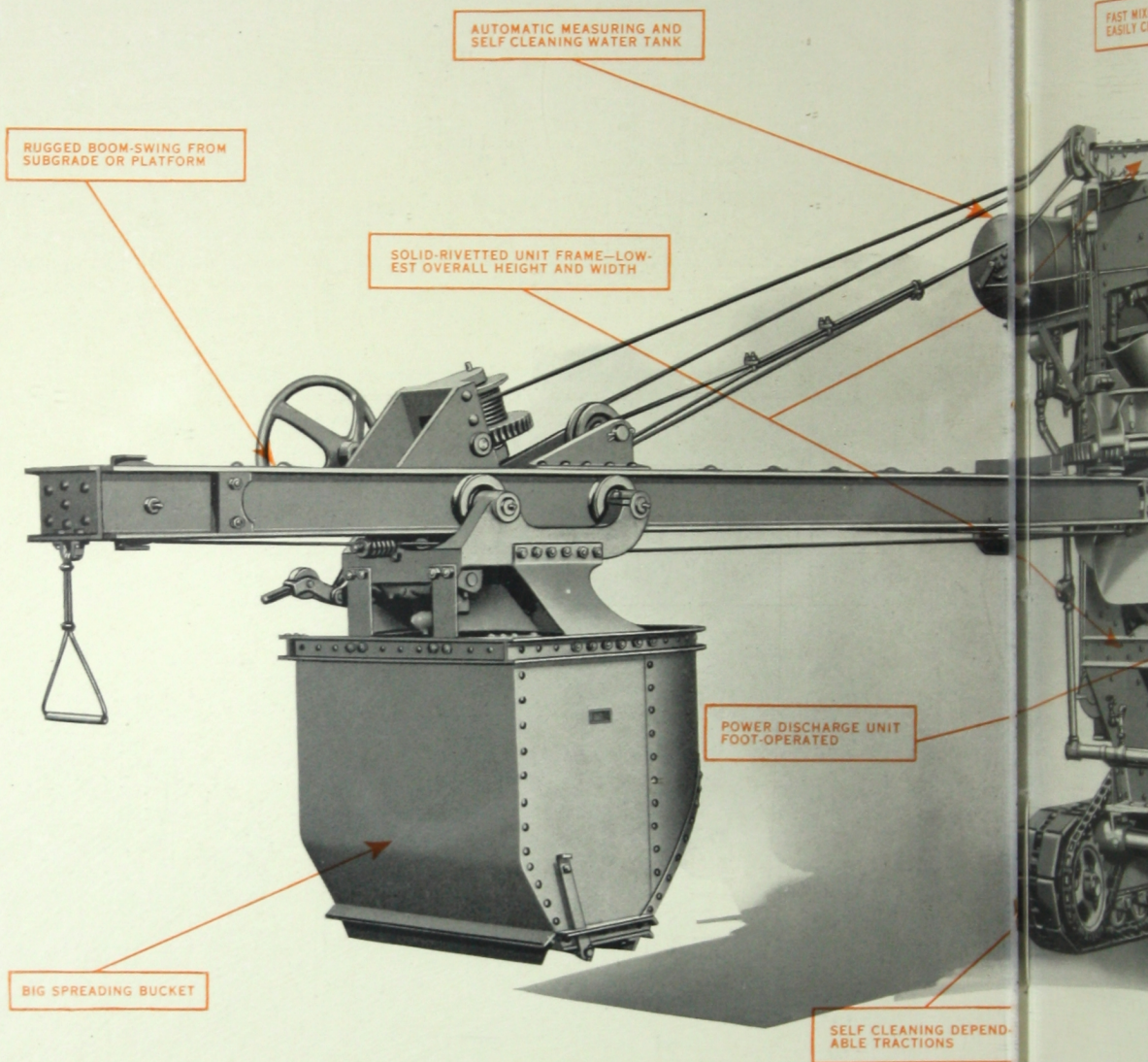
Mixer	N	O	P	Q Inside	R Inside	S	T	U	V	X	Y	Z
14-S	5'-6"	4'-0"	2'-3 3/8"	3'-8"	4'-6 3/4"	1'-7"	6"	6"	8"	8'-0 3/8"	4'-5 1/2"	1'-8"
21-S	5'-11"	4'-1 1/4"	2'-1 1/2"	3'-8"	4'-11"	1'-10 1/2"	6"	6"	9"	9'-0"	4'-7 7/8"	1'-8"
28-S	6'-8"	4'-10"	3'-3"	4'-3"	5'-3 3/8"	2'-1"	6"	6"	9"	9'-8"	5'-3"	1'-8"



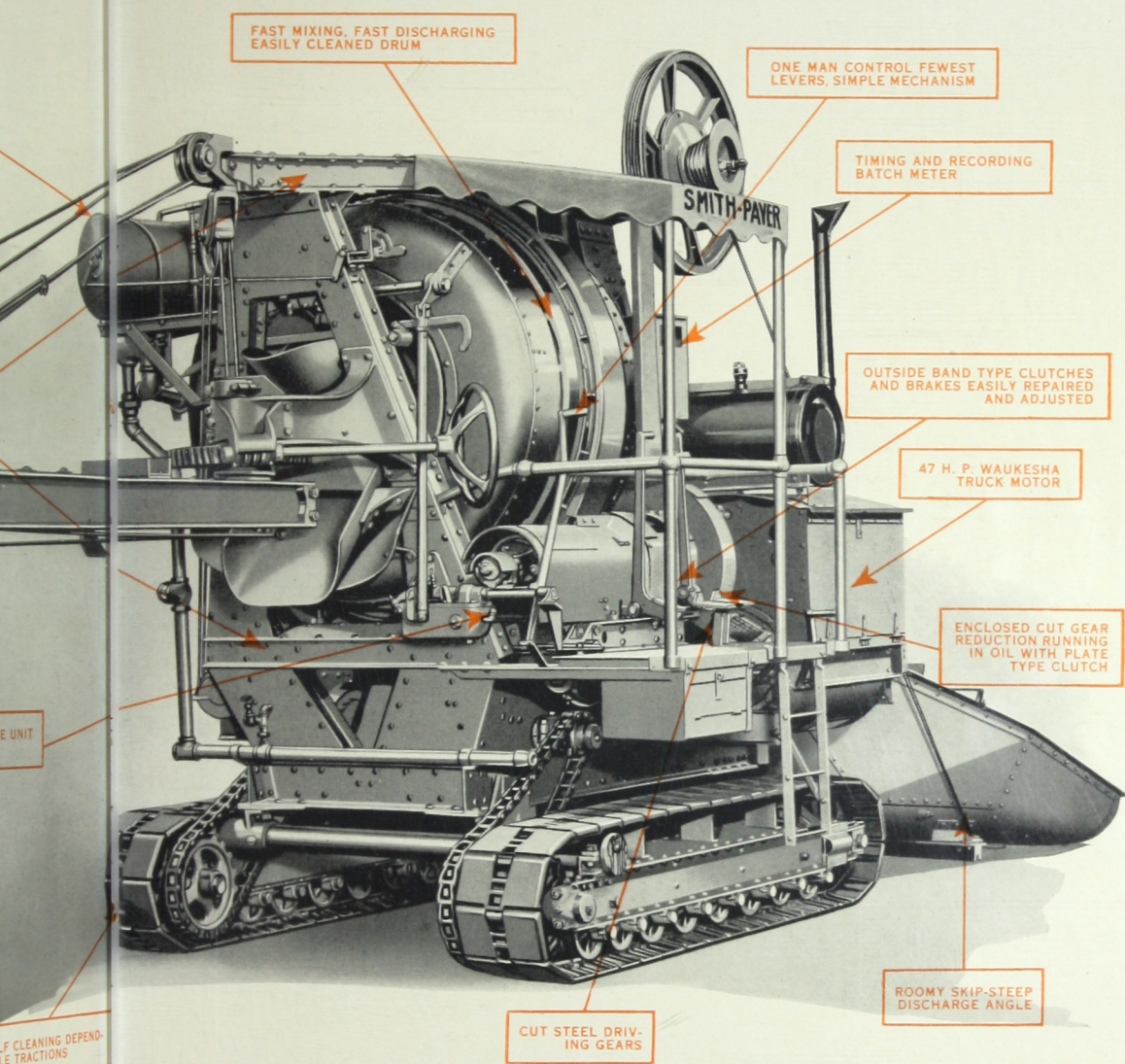
With Power Loader

Mixer	A Eng. or motor only	A for Stm. Eng. & Boiler	B	C	D	E	F	G	H	J	K	L	M	N	O
14-S	8'-9 1/4"	11'-7 1/2"	1'-3"	7'-2"	4 1/2"	2'-9 1/4"	2'-6 1/2"	2'-10 3/8"	1'-9"	2'-8 3/4"	3'-4"	8"	2'-3 1/4"	2'-2 3/4"	1'-2 3/4"
21-S	9'-4 1/8"	12'-4 1/8"	1'-3"	7'-8 3/8"	4 1/8"	2'-11 3/8"	2'-10"	3'-0"	1'-10"	2'-10 3/8"	3'-8"	9"	2'-4 1/4"	2'-2 3/8"	1'-6"

Mixer	P	Q	R	S Inside	T	U	V	W	X	Y	Z	a	b	d	e	f
14-S	1'-11 3/4"	1'-5 3/4"	1'-8 1/2"	4'-6 3/4"	4'-0"	9'-6"	5'-0"	6'-2 1/4"	4'-8 3/8"	9'-9"	1'-8"	11'-9"	3'-1"	2'-6"	6"	2'-0"
21-S	2'-1 1/4"	1'-6 1/2"	1'-9 1/2"	4'-11"	4'-1 1/4"	10'-6 1/2"	5'-2 1/2"	6'-4 1/2"	5'-3"	10'-8 1/2"	1'-8"	12'-8 1/2"	3'-3 1/2"	2'-6"	6"	2'-0"



HIGH SPEED, RUGGED, SIMPLE—SMITH 277

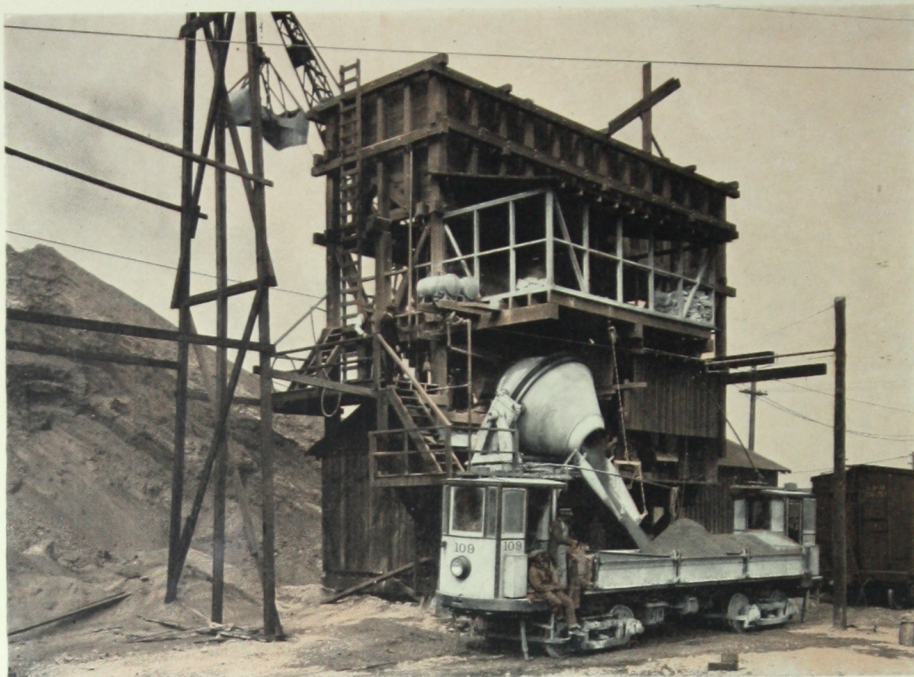


—SMITH 27E (Six Bag) PAVER

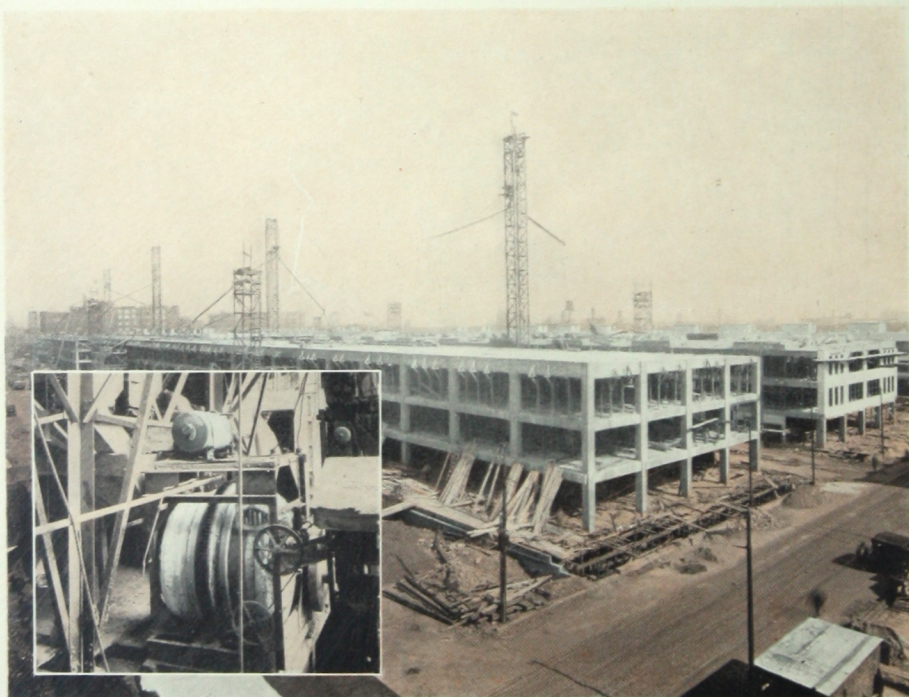
Table of Proportions and Capacities

We guarantee only the mixed batch capacities of our mixers as set by the Associated General Contractors of America. See page 50. The following table is given only for the convenience of our customers, and is based upon the use of cement, average screened sand, up to 2" stone, and approximately $1\frac{1}{2}$ gallons of water per cu. ft. of concrete with voids of 40%.

Ingredients	Pro- portions	2½-S	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	40-S	56-S	112-S
Cement.....	1	½ Bag	1 Bag	1 ½ Bag	2 Bags	3 Bags	4 Bags	6 Bags	8 Bags	11 Bags	16 Bags	32 Bags
Sand.....	1 ½	¾ cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	3 cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	16 ½ cu. ft.	24 cu. ft.	48 cu. ft.
Stone.....	3	1 ½ cu. ft.	3 cu. ft.	6 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	33 cu. ft.	48 cu. ft.	96 cu. ft.
Sand.....	1	½ Bag	1 Bag	1 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Cement.....	1 ½	¾ cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	3 ½ cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	10 ½ cu. ft.	15 cu. ft.	21 cu. ft.	42 cu. ft.
Stone.....	3 ½	1 ¾ cu. ft.	3 ¾ cu. ft.	6 ¾ cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	14 ½ cu. ft.	21 ½ cu. ft.	28 ½ cu. ft.	39 cu. ft.	56 cu. ft.	112 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2	1 cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	2 cu. ft.	3 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	32 cu. ft.
Stone.....	3	1 ½ cu. ft.	2 ½ cu. ft.	4 ½ cu. ft.	3 cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	48 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2	1 cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	2 cu. ft.	3 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	32 cu. ft.
Stone.....	3 ½	1 ¾ cu. ft.	3 ¾ cu. ft.	6 ¾ cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	14 ½ cu. ft.	21 ½ cu. ft.	28 ½ cu. ft.	39 cu. ft.	56 cu. ft.	112 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2	1 cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	2 cu. ft.	3 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	32 cu. ft.
Stone.....	3	1 ½ cu. ft.	2 ½ cu. ft.	4 ½ cu. ft.	3 cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	48 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2 ½	1 ¼ cu. ft.	2 cu. ft.	3 ½ cu. ft.	2 ½ cu. ft.	4 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	43 ½ cu. ft.
Stone.....	4	2 cu. ft.	3 cu. ft.	6 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	24 cu. ft.	32 cu. ft.	64 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2	1 cu. ft.	1 ½ cu. ft.	2 ½ cu. ft.	2 cu. ft.	3 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	32 cu. ft.
Stone.....	3	1 ½ cu. ft.	2 ½ cu. ft.	4 ½ cu. ft.	3 cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	48 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2 ½	1 ¼ cu. ft.	2 cu. ft.	3 ½ cu. ft.	2 ½ cu. ft.	4 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	43 ½ cu. ft.
Stone.....	4	2 cu. ft.	3 cu. ft.	6 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	24 cu. ft.	32 cu. ft.	64 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2 ½	1 ¼ cu. ft.	2 cu. ft.	3 ½ cu. ft.	2 ½ cu. ft.	4 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	43 ½ cu. ft.
Stone.....	5	2 ½ cu. ft.	4 cu. ft.	7 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	30 cu. ft.	40 cu. ft.	80 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	2 ½	1 ¼ cu. ft.	2 cu. ft.	3 ½ cu. ft.	2 ½ cu. ft.	4 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	43 ½ cu. ft.
Stone.....	5	2 ½ cu. ft.	4 cu. ft.	7 cu. ft.	5 cu. ft.	7 ½ cu. ft.	10 ½ cu. ft.	15 ½ cu. ft.	21 ½ cu. ft.	30 cu. ft.	40 cu. ft.	80 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand.....	3	1 ½ cu. ft.	2 ½ cu. ft.	4 ½ cu. ft.	3 cu. ft.	4 ½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	48 cu. ft.
Stone.....	6	3 cu. ft.	5 cu. ft.	9 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	36 cu. ft.	48 cu. ft.	96 cu. ft.
Cement.....	1	½ Bag	1 ½ Bag	2 ½ Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Gravel.....	6	3 cu. ft.	5 cu. ft.	9 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	36 cu. ft.	48 cu. ft.	96 cu. ft.



Central Mixing Plant—Smith 56-S two-yard Tilting Mixer, Sloss-Sheffield Steel & Iron Co.
Birmingham, Ala.



One of two 21-S Non-Tilt Mixers used in construction of Public Markets, Chicago.
McLennon Construction Co.—contractors.

TELEGRAPHIC CODE—SMITH MIXERS

Small Tilting Mixers

DESCRIPTION OF EQUIPMENT.....	No. 2½-S	No. 3½-S	No. 5-S	No. 7-S
On skids with pulley no power.....	Jealous	Kennel	Lantern	Magister
On skids with standard gears—Note 1.....	Javelin	Kerfed	Lapping	Magnate
On skids with cut gears—Note 2.....	Jenny	Kernel	Lapse	Magot
On skids with gasoline engine, housed.....	Jeopard	Kettle	Larceny	Maize
On skids with electric motor—Note 3.....				
For trucks instead of skids, add the word.....	Jerker	Keystone	Larder	Major
Standard feed chute.....	Jerkin	Kicker	Lasher	Malady
Power loader, no tank.....	Jester	Kidnap	Lasso	Mallard
Power loader with water tank.....	Jetsom	Kilter	Lasting	Mallet
Water tank.....	Jetty	Kimbo	Latence	Mallow

NOTE 1—Give the speed, keyway dimensions, and shaft diameter of the engine you intend to use.

NOTE 2—Specify the speed, shaft diameter, and keyway dimensions of the motor you intend to use.

NOTE 3—Specify voltage and whether alternating or, direct current. If alternating current, specify number of cycles.

NOTE 4—For our own standard engine only.

Large Tilting Mixers

DESCRIPTION OF EQUIPMENT.....	No. 10-S	No. 14-S	No. 21-S	No. 28-S	No. 40-S	No. 56-S
On skids, with pulley, no power.....	Burghmate	Curtation	Dualist	Fuddler	Harvest	Guilder
On skids with standard gears—Note 1.....	Burgout	Curtilage	Duarchy	Fudge	Handle	Gulch
On skids with cut gears—Note 2.....	Burmese	Curvet	Duan	Fuero	Holder	Gulf
On skids with steam engine only.....	Burlace	Cuskin	Dubiosity	Fugitive	Haggard	Gunnage
On skids with steam engine and boiler.....	Burliness	Custody	Ducat	Fulah	Halter	
On skids with gasoline engine, housed.....	Burnish	Custos				
On skids with electric motor—Note 3.....	Burnos	Custree	Ducatoon	Fulcible	Hammer	Gunwale
For trucks instead of skids, add the word.....	Busby	Cutose	Duffe			
Standard feed chute.....	Bush	Cuttle	Dulse	Fulham	Heckle	Gurgle
Gated batch hopper, no tank.....	Busto	Cygnnet	Duenna	Fulminate	Happen	Gustation
Gated batch hopper with water tank.....	Butane	Cymogene	Duledge	Fumid	Harpen	Guttle
Steel frame for batch hopper.....	Butcher	Cymose	Duetto	Fumado	Hamper	Gutter
Power loader, no tank.....	Butlerage	Cymation	Dumpling	Fumigate		
Power loader with water tank.....	Buttress	Cymbal	Dumfound	Fulsome		
Friction clutch for mixer without power— Note 4.....	Buzzard	Cynthia	Duress			
House for gasoline engine for mixer with- out power—Note 4.....	Byard	Cypress	Durham			

NOTE 1—Give the speed, keyway dimensions, and shaft diameter of the engine you intend to use.

NOTE 2—Specify the speed, shaft diameter, and keyway dimensions of the motor you intend to use.

NOTE 3—Specify voltage and whether alternating or direct current. If alternating current, specify number of cycles.

NOTE 4—For our own standard engine only.

Non-Tilting Mixers

DESCRIPTION OF EQUIPMENT.....	7-S	10-S	14-S	21-S	28-S
On skids with pulley, no power.....	Denounce	Pitch	Ermine	Mock	Oath
On skids with standard gears, no power—Note 1.....	Dental	Pinch	Erogate	Mogul	Octyl
On skids with cut gears and back gearing for electric motor, no power—Note 2.....	Deraile	Plump	Erupt	Mohair	Odiuso
On skids with steam engine only.....	Derth	Pluck	Eschew	Mongrel	Ogham
On skids with steam engine and boiler.....	Dextrous	Plank	Eskimo	Moss	Olien
On skids with gasoline engine, housed.....	Dialogue	Pithy	Espouse		
On skids with electric motor—Note 3.....	Diffuse	Packet	Eternal	Motley	Omega
For trucks instead of skids, add the word.....	Diphthong	Pocket	Ethipo	Muffle	
Standard feed chute.....	Direct	Poled	Etude	Mugil	Ondine
Gated batch hopper, no tank.....		Plane	Eucalin	Mullet	Opine
Gated batch hopper, with water tank.....		Panier	Euchra	Mundane	Opium
Power loader, no tank.....	Diurnal	Purse	Eugenie	Murex	
Power loader, with water tank.....	Divan	Pincer	Evasive	Mural	
Low charging hopper and platform, without water tank.....	Dodge	Foult			
Low charging hopper and platform, with water tank.....	Dogma	Portal			
Friction clutch, for mixer without power—Note 4.....	Dolabra	Pester	Exalt		
House for gasoline engine for mixer without power—Note 4.....	Domain	Pence	Exhort		

NOTE 1—Specify whether for steam or gasoline engine. Specify the speed, crank shaft diameter of the engine and keyway dimensions which you intend to use.

NOTE 2—Specify the speed, keyway dimensions, and shaft diameter of the motor which you intend to use.

NOTE 3—Specify voltage and whether direct or alternating current. If alternating current, specify how many cycles.

NOTE 4—For our own standard engine only.

SMITH TILTING MIXERS

Weights and Cubical Contents Boxed for Export

Mixer Size	Description	Crate No.	Weight—Pounds			Size Inches			Contents Cu. Ft.
			Gross	Tare	Net				
2½-S	On trucks, no power, feed chute.....	1	1215	760	455	90	43	43	96.3
	On trucks, gas engine, feed chute.....	1	1490	760	730	90	43	43	96.3
	Trucks omitted, deduct 190 lbs.....	1	.....	.....	.....	..	..	..	.....
3½-S	On two wheel trucks, gas eng., feed chute...	1	1890	765	1125	78	52	45	105.6
	On four wheel trucks, gas engine, feed chute	1	2035	765	1270	78	52	45	105.6
	Power omitted, deduct 235 lbs.....	1	.....	.....	.....	..	..	..	.....
	On trucks, gas eng., power loader.....	1	2815	1085	1730	92	62	48	158.5
	On trucks, elec. motor, power loader.....	1	2740	1090	1650	98	61	49	170.0
	Power omitted, deduct 390 lbs.....	1	.....	.....	.....	..	..	..	.....
5-S	On trucks, gas engine, feed chute.....	1	3190	1200	1990	90	57	54	160.3
	On trucks, gas eng., pwr. loader.....	1	4050	1450	2600	96	72	62	252.0
	Power omitted, deduct 450 lbs.....	1	.....	.....	.....	..	..	..	.....
7-S	On trucks, gas engine, feed chute.....	1	4230	1580	2650	108	66	66	272.3
	On trucks, gas eng., pwr. loader and tank...	1	4465	1610	2855	108	72	66	297.0
	Power omitted, deduct 400 lbs.....	2	985	350	635	66	48	36	66.0
10-S	On trucks, 2 cyl. gasoline engine, feed chute	1	7190	2600	4590	126	78	78	443.6
	On trucks, 2 cylinder gasoline engine, power	1	7190	2600	4590	126	78	78	443.6
	loader, tank.....	2	1800	600	1200	90	60	36	102.5
	For electric motor, add 210 lbs.....	1	.....	.....	.....	..	..	..	.....
	For 4 cyl. gasoline engine, add 80 lbs.....	1	.....	.....	.....	..	..	..	.....
	Power omitted, deduct 590 lbs.....	1	.....	.....	.....	..	..	..	.....
14-S	On skids, no power, feed chute.....	1	4075	1197	2878	148	61	48	251.0
	On skids, no power, batch hopper.....	2	2880	1130	1750	80	76	70	249.0
	On skids, no power, power loader.....	1	4450	1280	3170	167	55	49	268.4
	On skids, no power, power loader.....	2	2880	1130	1750	80	76	70	246.0
	On skids, no power, power loader.....	3	1280	570	710	63	63	60	137.8
	On skids, no power, power loader.....	1	5720	1460	4260	167	69	59	393.4
	On skids, no power, power loader.....	2	2280	1130	1150	80	76	70	246.0
	On skids, no power, power loader.....	3	1375	815	560	97	61	50	171.21
	On skids, no power, power loader.....	4	1500	660	840	90	84	17	74.38
	Gas engine.....	1	1680	480	1200	54	48	39	58.5
	Steam engine.....	1	1310	390	920	60	36	30	37.5
	Boiler.....	1	3020	620	2400	86	38	38	71.9
	Water tank add 180 lbs. to Crate No. 1.....	1	.....	.....	.....	..	..	..	.....
	Trucks add 800 lbs. to Crate No. 1.....	1	.....	.....	.....	..	..	..	.....
21-S	On skids no power feed chute.....	1	5400	1840	3560	192	63	48	336.0
	On skids no power, batch hopper.....	2	2930	660	2270	78	74	72	240.5
	On skids no power, batch hopper.....	1	5740	1830	3910	192	63	48	336.0
	On skids, no power, power loader.....	2	2930	660	2270	78	74	72	240.5
	On skids, no power, power loader.....	3	960	450	510	68	68	48	128.2
	On skids, no power, power loader.....	1	6785	1910	4875	192	68	63	336.0
	On skids, no power, power loader.....	2	2930	660	2270	78	74	72	240.5
	On skids, no power, power loader.....	3	2455	1145	1310	95	78	66	283.0
	On skids, no power, power loader.....	4	2230	900	1330	103	97	24	138.76
	Gas engine.....	1	3550	700	2850	60	48	36	60.0
	Steam engine.....	1	1750	400	1350	68	43	34	57.0
	Boiler.....	1	3700	800	2900	90	40	40	83.3
	Electric motor and gearing.....	1	2400	600	1800	42	34	24	19.83
	Trucks, add 950 lbs. to Crate No. 1.....	1	.....	.....	.....	..	..	..	.....
28-S	On skids, no power, feed chute.....	1	7260	1780	5480	161	72	58	388.7
	On skids, no power, batch hopper.....	2	4090	1230	2860	89	88	86	389.78
	On skids, no power, batch hopper.....	1	7340	1780	5560	161	72	58	388.7
	On skids, no power, batch hopper.....	2	4090	1230	2860	89	88	86	389.78
	On skids, no power, batch hopper.....	3	1550	800	750	75	75	56	182.5
	Water tank omitted, deduct 475 lbs. crate 1	1	.....	.....	.....	..	..	..	.....
	On skids, 15'-6" lg., no power, power loader.	1	8205	1900	6305	191	75	73	605.16
	On skids, 15'-6" lg., no power, power loader.	2	4090	1230	2860	89	88	86	389.78
	On skids, 15'-6" lg., no power, power loader.	3	4240	1360	2880	115	85	68	376.00
	On skids, 15'-6" lg., no power, power loader.	4	2335	900	1435	109	106	24	160.47
	Water tank omitted deduct 475 lbs. crate 1	1	.....	.....	.....	..	..	..	.....
	Gas engine.....	1	3550	700	2850	60	48	36	60.00
	Steam engine.....	1	1530	400	1130	71	45	36	66.75
	Boiler.....	1	4300	900	3400	100	48	46	127.8
	Electric motor and gearing.....	1	2925	825	2100	54	36	30	33.8

We do not guarantee the figures given here. They are approximate only and are subject to variations for which we cannot be held responsible.

SMITH NON-TILTING MIXERS Weights and Cubical Contents—Boxed for Export*

Mixer Size	DESCRIPTION	CRATE No. 1						CRATE No. 2					
		Weight—Pounds		Size—Inches		Cu. Ft.	H Ft.	Weight—Pounds		Size—Inches		Cu. Ft.	H Ft.
		Gross	Net	L	W			Gross	Net	L	W		
7-S	On trucks, no power, low charge hopper and platform.....	3740	1200	2540	117	64	54	219.4					
	On trucks, gas engine, low charge hopper and platform.....	4750	1300	3450	117	64	54	234.0					
	On trucks, steam engine, power loader.....	5305	1400	3905	120	64	60	246.7					
	On trucks, steam engine, power loader.....	5900	1500	4205	120	64	60	260.0					
	On trucks, electric motor, low charge hopper and platform.....	4490	1300	3190	117	64	54	234.0					
	On trucks, electric motor, power loader.....	5045	1400	3645	120	64	60	266.7					
	For boiler, add one crate.....	1550	450	1100	78	30	30	40.6					
	For water tank and support, add 135 lb.												
	Trucks omitted, deduct 3410 lb.												
	Platform omitted, deduct 180 lb.												
10-S	On trucks, no power, feed chute.....	5115	1700	3415	111	72	48	222.					
	On trucks, no power, power loader.....	5300	1700	3600	111	72	48	222.					
	On trucks, gas engine, feed chute.....	6100	1700	4000	111	72	48	222.					
	On trucks, steam engine, power loader.....	5900	1700	3705	111	72	48	222.					
	On trucks, steam engine, power loader.....	6305	1800	4005	111	72	48	222.					
	On trucks, steam engine, power loader, Note 4.....	7260	1950	5310	138	75	48	237.5					
	On trucks, steam engine, feed chute.....	6065	1800	4265	114	75	48	237.5					
	For batch hopper, add one crate.....	420	160	260	56	32	48	49.2					
	For water tank, add 185 lbs.....												
	For electric motor, add 800 lbs.....												
14-S	On trucks, no power.....	5450	1280	4170	167	55	49	260.4					
	On trucks, no power, power loader.....	6730	2030	4700	145	91	67	311.6					
	On trucks, no power, batch hopper.....	5450	1280	4170	167	55	49	260.4					
	See Note No. 2.....												
	Steam engine, add one crate.....	1175	255	920	60	36	30	37.5					
	Boiler, add one crate.....	3020	620	2400	86	38	38	71.9					
	Gasoline engine, add one crate.....	2600	600	2000	56	50	28	45.4					
	Electric motor and back gearing, add one crate.....	1850	450	1400	44	30	24	18.3					
	For water tank, add 180 lb. to large crate												
	Trucks omitted, deduct 1000 lb. from large crate												
21-S	On trucks, no power.....	4915	1650	3265	154	60	60	320.8					
	On trucks, no power, power loader.....	5865	2000	3865	154	72	60	385.0					
	See Note No. 3.....												
	On trucks, no power, batch hopper.....	5840	2000	3840	154	72	60	385.0					
	Steam engine, add one crate.....	1620	470	1150	63	42	36	55.1					
	Steam boiler, add one crate.....	3700	800	2900	90	40	40	83.3					
	Gasoline engine, add one crate.....	3200	950	2250	70	60	32	77.8					
	Electric motor and back gearing, add one crate.....	2400	600	1800	40	30	30	20.8					
	For water tank, add 180 lb. to large crate												
	Trucks omitted, deduct 1400 lb. from large crate.												
28-S	On short skids for motor or pulley drive, no power.....	4275	825	3450	128	70	44	228.2					
	On long skids for steam engine and boiler, no power.....	4520	920	3600	160	70	44	285.2					
	Batch hopper, add one crate.....	1200	550	650	78	48	48	104.0					
	Steam engine, add one crate.....	2120	520	1600	69	44	40	70.3					
	Steam boiler, add one crate.....	3300	900	2400	100	48	46	127.8					
	Electric motor and back gearing, add one crate.....	3125	825	2200	94	36	30	33.8					
	For water tank, add 310 lb. to large crate.												

*We do not guarantee the figures given here. They are approximate only, and are subject to variations for which we cannot be held responsible.

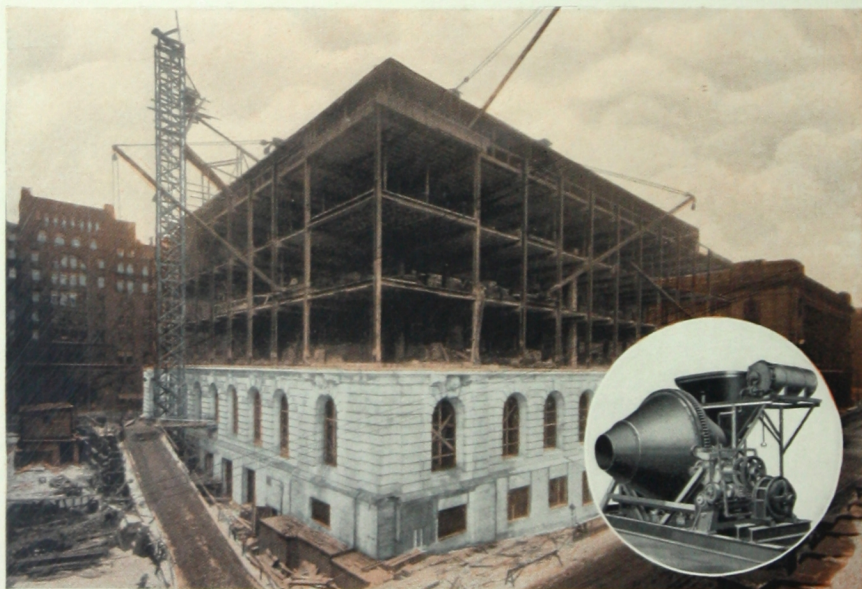


Hennepin County Bridge, Mendota, Minn., world's largest bridge—Koss Const. Co., contractors; Wheeler & Turner, engineers, 2-21-S Smith Tilters used.

World-wide Sales and Repair Service

Smith Mixers and Pavers are sold and serviced in all of the principal cities of this country and Canada. Mussens Ltd., with offices in Montreal, Toronto, Winnipeg and Vancouver handle Canadian sales and service. A branch office of the T. L. Smith Co., in London, supervises production sales and service in England, Germany, Italy and Austria.

Simple construction, high quality and long life are the standards of Smith design and manufacture. Even the best built equipment requires repairs occasionally and parts for Smith mixers are carried in stock ready for immediate shipment.



Cleveland Public Library—Lundoff-Bicknell Co., contractors—built with 21-S Tilter in use by contractors since 1912.

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